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PROCEEDINGS

147

OF THE

THIRTY-NINTH ANNUAL CONVENTION

OF THE

ONTARIO EDUCATIONAL  
ASSOCIATION

HELD IN

TORONTO

On the 17th, 18th and 19th April, 1900.

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17/8/00

TORONTO :  
WILLIAM BRIGGS

1900

# PAST PRESIDENTS

## OF THE

# Ontario Educational Association.

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1861,	-	-	T. J. ROBERTSON, M.A.
1862,	-	-	REV. JOHN MCCAUL, D.D.
1863-64-65,	-	-	DANIEL WILSON, LL.D.
1866-67,	-	-	REV. WILLIAM ORMSTON, D.D.
1868,	-	-	WILLIAM McCABE, LL.B.
1869-70,	-	-	S. S. NELLES, D.D.
1871,	-	-	GEORGE PAXTON YOUNG, M.A.
1872,	-	-	REV. WILLIAM SNODGRASS, LL.D.
1873,	-	-	PROFESSOR NICHOLSON.
1874-75,	-	-	GOLDWIN SMITH, LL.D.
1876,	-	-	EGERTON RYERSON, LL.D.
1877,	-	-	WILLIAM CAVEN, D.D.
1878,	-	-	JAMES A. McLELLAN, M.A., LL.D.
1879-80,	-	-	ROBERT ALEXANDER.
1881-82,	-	-	ARCHIBALD McMURCHY, M.A.
1883,	-	-	HON. G. W. ROSS, LL.D.
1884,	-	-	JAMES A. McLELLAN, M.A., LL.D.
1885,	-	-	SAMUEL McALLISTER.
1886,	-	-	H. I. STRANG, B.A.
1887,	-	-	JOSEPH H. SMITH.
1888,	-	-	ROBERT McQUEEN.
1889,	-	-	D. C. McHENRY, M.A.
1890-91,	-	-	WILLIAM MACKINTOSH.
1892,	-	-	SAMUEL B. SINCLAIR, B.A.
1893,	-	-	ALEXANDER STEELE, M.A.
1894,	-	-	S. T. LAZIER, LL.B.
1895,	-	-	ALFRED BAKER, M.A.
1896,	-	-	JOHN DEARNESS.
1897,	-	-	{ JOHN MUNRO.
			{ A. A. JORDAN.
1898,	-	-	THOMAS KIRKLAND, M.A.
1899,	-	-	J. E. FAREWELL, LL.B.



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PROCEEDINGS  
OF THE  
Thirty-Ninth Annual Convention  
OF THE  
ONTARIO EDUCATIONAL ASSOCIATION.

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*MINUTES OF THE GENERAL ASSOCIATION.*

FIRST DAY—EVENING SESSION.

TUESDAY, APRIL 17TH, 1900.

The Convention met in the Public Hall of the Education Department, at eight o'clock in the evening, the President, J. E. Farewell, LL.B., in the chair.

The audience joined in singing the National Anthem.

Mr. John Spence, President of the Toronto Teachers' Association, gave the members a hearty fraternal welcome to Toronto, on behalf of the said Association.

Mrs. E. A. Stevens, President of the Toronto District Women's Christian Temperance Union, welcomed the delegates to the city.

Mr. J. R. L. Starr, Chairman of the Toronto Public School Board, extended a hearty welcome to the members of the Association.

Hon. Richard Harcourt, Minister of Education, extended a cordial welcome to the visitors.

President Farewell responded on behalf of the Association to the addresses of welcome. The Convention adjourned.

## SECOND DAY—EVENING SESSION.

WEDNESDAY, APRIL 18TH.

The Convention assembled in the Public Hall of the Education Department at eight o'clock, the President in the chair.

Rev. Father Ryan, rector of St. Michael's Cathedral, opened the proceedings by reciting the Lord's Prayer.

Moved by Mr. W. J. Hendry, seconded by Mr. W. Scott, that the minutes of the meeting for 1899, having been printed and circulated, be considered as read and approved. Carried.

The Financial Statement and the Auditors' Report relating thereto were read, and on motion of Mr. W. J. Hendry, seconded by Mr. C. A. Barnes, they were received and adopted.

President Farewell delivered his address.

President Grant addressed the Association on "What We Lack."

The election of officers resulted as follows:

<i>President</i>	-	-	-	Mrs. Ada M. Hughes,
<i>Secretary</i>	-	-	-	Mr. Robert W. Doan,
<i>Treasurer</i>	-	-	-	Mr. W. J. Hendry.

Rev. Father Ryan, rector of St. Michael's Cathedral, Toronto, addressed the Association.

Chancellor Burwash presented the report of the committee appointed last year having reference to the examination of teachers, etc., and moved its reception and adoption. The motion was seconded by Principal Scott.

Mr. W. J. Robertson, of St. Catharines, moved in amendment, seconded by Mr. J. H. Knight, of Lindsay, that the report be received, the committee thanked for its services, and the consideration of the report be deferred until the next annual meeting. The amendment was carried.

Moved by Mr. J. Suddaby, of Berlin, seconded by Mr. J. J. Tilley of Toronto, that a committee composed of Messrs. A. Barber, of Brampton, and R. Alexander, of Galt, be appointed to prepare a suitable resolution of condolence on the death of Mr. Neil Campbell, of St. Thomas, who was for many years an active member of this Association. Carried.

Moved by Mr. G. A. Aylesworth, of Newburgh, seconded by Mr. J. H. Knight, Lindsay, that the next meeting of this Association be held in Toronto during the Easter vacation of 1901. Carried.

Moved by Mr. R. W. Doan, seconded by Principal Scott, that the thanks of the Association be and are hereby tendered to the Minister of Education for the use of this building, and for the tasteful decorations arranged under the supervision of Dr. May; to the daily newspapers of Toronto for their full and accurate reports of the proceedings, and to the railways for the liberal travelling rates granted to the members of the Association. Carried.

Col. Deacon, of Lindsay, moved, seconded by Principal MacCabe, of Ottawa, that the thanks of the meeting be tendered to Col. Farewell for the courteous, intelligent and zealous manner in which he had discharged the onerous duties of President of the Association during the past year, and for the excellent address which he had delivered this evening.

Principal Scott put the motion, declared it carried unanimously, and presented the thanks of the meeting to President Farewell.

Mr. G. A. Aylesworth moved a vote of thanks to the Rev. Principal Grant and to the Rev. Father Ryan for their interesting and profitable addresses. This was seconded by Mr. H. I. Strang, of Goderich, and carried.

The meeting was closed by the members singing the National Anthem, led by Mr. A. T. Cringan.

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#### MINUTES OF THE COLLEGE AND HIGH SCHOOL DEPARTMENT.

The College and High School Department met at 10 a.m., Thursday, April 19th, 1900, John Henderson, M.A., in the chair.

Mr. W. J. Robertson read his paper on "The Development and History of Secondary Education in Ontario."

Moved by W. K. T. Smellie, Deseronto, and seconded by Mr. Rogers, Bradford, "that it is contrary to the interests of the Secondary Schools and to those of the pupils in the Public Schools taking examination work, that no proper provision has been made by the Regulations for the study of Latin, Algebra or Geometry by pupils in the latter schools who take continuation work."

Moved by Mr. Embree, seconded by Mr. Smellie, and

*Resolved*,—That a committee be appointed by this Department to present to the Minister of Education the proposed resolution, *re* Continuation Work in ungraded schools, which is intended to

represent dissatisfaction with the evils that are resulting from such classes, rather than to suggest a specific remedy for those evils; the names on the Committee to be Messrs. Rogers, Smellie, Coombs, Colbeck, Embree. Carried.

Moved by Mr. Embree, seconded by Mr. Strang, That the High School Regulations be so amended as to make Drill, Gymnastics and Calisthenics optional in Form III. as it is now in Form IV. Carried.

It is understood this is to be transmitted to the Minister of Education.

The Department adjourned till 2 p.m.

The Department reassembled at 2 p.m.

Jas. Loudon, M.A., LL.D., President of Toronto University, read his paper on "Technical and Manual Training in Germany."

The following officers were elected for the ensuing year:

<i>President</i>	-	-	J. Henderson, M.A.
<i>Vice-President</i>	-	-	J. Squair, B.A.
<i>Secretary</i>	-	-	T. H. Smyth, M.A., B.Sc.

The Committee elected by the various sections of this Department consist of the following representatives:

<i>Mathematical</i>	-	-	I. J. Birchard, M.A., Ph.D.
<i>Mod. Language</i>	-	-	J. Squair, B.A.
<i>Historical</i>	-	-	W. J. Robertson, M.A., LL.D.
<i>Nat. Science</i>	-	-	E. L. Hill, B.A.
<i>Classical</i>	-	-	John Henderson, M.A.
<i>Commercial</i>	-	-	E. E. C. Kilmer.

The representatives of the College and High School Department on the Board of Directors of the Ontario Educational Association are: Messrs. Henderson (*ex officio*), T. H. Smyth (*ex officio*), Birchard, Squair, Robertson, Kilmer.

T. H. SMYTH,

*Secretary College and High School Department.*



*MINUTES OF MODERN LANGUAGE SECTION.*

The fourteenth annual meeting of the Modern Language Association opened on Tuesday, April 17th, at 10 a.m., in Mr. Elliott's rooms in the Normal School, the President, Mr. A. Stevenson, being in the chair.

The forenoon was occupied with a joint meeting with the Historical Association, at which two papers were read, one by Adam Shortt, M.A., on "Municipal Government in Ontario," and the other by J. Home Cameron, M.A., on "Realism in Modern Literature."

At the afternoon session the President, A. Stevenson, B.A., read a paper on "A New England Philosopher," which was followed by an address by Thomas O'Hagan, M.A., Ph.D., on "French-Canadian Life and Literature," and by a paper on "Eric Mackay," by F. F. Macpherson, B.A.

On Wednesday, April 18th, the Association reassembled at 10 a.m., when the following officers were elected for the ensuing year:

<i>President</i>	-	Mr. W. H. Fraser.
<i>Vice-President</i>	-	Mr. A. W. Burt.
<i>Sec.-Treas.</i>	-	Mr. J. Squair.
<i>Councillors</i>	-	Miss E. M. Balmer, Miss L. L. Jones, Miss Kate Skinner, Mr. W. J. Alexander, Mr. J. Home Cameron, Mr. W. C. Ferguson, Mr. E. A. Hardy, Mr. E. S. Hogarth, Mr. G. M. Jones, Mr. A. E. Lang, Mr. J. C. Rogers, Mr. A. Steven- son.

On motion of Dr. Pelham Edgar, the Executive was instructed to arrange for representation of the Association at the King Alfred celebration to be held at Winchester, England, in the summer of 1901.

Mr. A. E. Lang gave notice that he would move at a future session that the number of councillors be limited to six, and that the members residing outside of Toronto be paid their travelling expenses if the funds of the Association permit.

An address in French on some points of difference between the system of education in France and the system in Ontario, was given by Monsieur St. Elme de Champ.

W. H. Fraser, B.A., read a paper on "The Humor and Satire of the first Rogue Story."

At the afternoon session on Wednesday, April 18th, the papers were (1) "The History of Hamlet Criticism," by Walter H. Libby, B.A.; (2) "The Bible as Literature," by Professor McFadyen, of Knox College; (3) "The Relation of the Bible to English Literature," by J. E. Wetherell, B.A.; (4) "The Teaching of the Bible in our High Schools," by A. W. Wright, B.A.

On motion of Mr. Wright, it was resolved, that in the opinion of the Modern Language Association, Bible history, literature and ethics should be taught in the educational institutions controlled by the Department of Education, and that this matter be referred by the Executive of this Association to the General Association and its various Departments for their approval and co-operation.

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### MINUTES OF THE NATURAL SCIENCE SECTION.

TUESDAY, APRIL 17TH, 1900.

The Natural Science Association held its first session at 2 p.m. on the above date, President Stevens occupying the chair.

The minutes of last year were read and approved.

Upon motion of Messrs. Merchant and Hamilton, Mr. S. B. McCready was appointed press reporter.

F. W. Merchant, M.A., London, reported for the Committee to present a petition to the Minister of Customs for a more liberal interpretation of the customs tariff as regards the importation of apparatus. He reported that the petition had been cordially received, and that as large a measure of relief as possible had been granted by the Minister, without interfering with the present tariff, which it was not the policy of the Government to change until a general revision took place. In response to our petition, the following "Appraisers' Bulletin No. 48" had been issued, for guidance of Customs Officers on and after 8th August, 1899:

*Department of Customs, Ottawa, 8th August, 1899.*

### PHILOSOPHICAL INSTRUMENTS AND APPARATUS—CLASSIFICATION.

File No. 43,715.

Under Tariff item 462, free entry is provided for philosophical instruments and apparatus *such as are not manufactured in Canada* when imported for use in Universities, Colleges, Schools and Public Hospitals.



This provision is not to be construed as allowing the free entry of *acids, alcohol or other preparations, chemicals or furniture*, for use in connection with philosophical instruments or apparatus.

Free entry is to be allowed as above provided for philosophical instruments such as are more perfect or more finely adjusted than instruments or apparatus of a similar class made in Canada, whether such instruments or apparatus be specified in another part of the Customs Tariff or not.

The list of philosophical instruments and apparatus made in Canada, issued per Board of Customs Memo. No. 1, is imperfect and many articles bearing the same names as those on this list, but of improved design or finer adjustment, *are entitled to free entry* as "philosophical instruments and apparatus such as are not manufactured in Canada."

The usual form B 1 may be used in passing free entry for philosophical instruments and apparatus, *the names of the articles being stated in the description on the entry*, with the addition of words to the following effect: "being philosophical instruments (or apparatus) such as are not manufactured in Canada for use in (universities, colleges, schools, scientific societies or public hospitals, giving particulars as far as practicable.)" The entry attested in this form to pass, taking into consideration the design of the articles, the importer's knowledge of their use and generally the *bonâ fides* of the importation for the purpose specified in the entry, so as to give fair effect to the provisions of the Tariff item.

Moved by Mr. Chrysler, seconded by Mr. Hamilton, that the thanks of the Association be tendered the Committee, and that the Committee be retained to ask for definite changes when the Tariff is revised. Carried.

T. H. Smyth, M.A., B.Sc., reported what had been done by the Committee appointed for programme of High School studies.

Mr. Mills said he had received no notice to attend meetings of the Committee, but had received a brief notice of what had been done by a portion of the Committee.

Moved by Mr. Ellis, seconded by Mr. Smellie, that a committee be appointed to consider the programme of Science work in High Schools, that it be an instruction to this committee to present a draft curriculum for Science work for High Schools, and submit it at next year's meeting; and that a proper amount of time at next year's meeting be reserved for the discussion and amendment or adoption of this report. Carried.

The President, W. H. Stevens, B.A., of Lindsay, then delivered his address on "The Science Curriculum." He dwelt upon the present unsatisfactory condition of the programme of studies, pointing out the lack of continuity and the disproportion.

The clear statements of the President evoked valuable discussion in which Messrs. Smellie, Hamilton, and several others took part. Mr. Merchant pointed out that in the Normal School of which he is Principal, 52 per cent. of the students have had no Physics or Botany before entering upon their course of professional training, though "Methods" in teaching these subjects are obligatory in the Normal Schools. The same difficulty occurs in the Normal College.

In pursuance of the motion of Messrs. Ellis and Smellie, the following were named as a committee to consider the Science programme: Messrs. Jenkins, Smith, Mills, Smellie and Hill.

Moved by Mr. Hamilton, seconded by Mr. Fraser, that this committee bring in a rough draft to-morrow. Carried.

### WEDNESDAY, APRIL 18TH, 1900.

The Association resumed work at 10 a.m., President Stevens in the chair.

The election of officers resulted as follows:

*Hon. President* - - - A. P. Coleman, M.A., Ph.D., Toronto.

*President* - - - W. S. Ellis, B.A., B.Sc., Kingston.

*Vice-President* - - - G. A. Smith, B.A., Toronto.

*Secretary-Treasurer and*

*Representative to Col-*

*lege and H. S. Dept.* - E. L. Hill, B.A., Guelph.

*Councillors* - - - G. K. Mills, B.A., Stratford; T. H.

Follick, M.A., St. Mary's; W. H.

Muldrew, M.A., D.Pæd., Graven-

hurst; A. Cosens, B.A., Brampton;

J. R. Hamilton, B.A., Brantford.

In the absence of the newly-elected President, Vice-President Smith took the chair.

Mr. Jenkins reported for the Committee appointed yesterday. The draft submitted was suggestive only, and not intended to be final.

1. Minimum requirements desired:

(a) Forms I. and II.—One Science subject obligatory on *all* High School pupils.

(b) Forms III. and IV.—One Science subject obligatory on *all* candidates for teachers' certificates.

2. Botany to be an obligatory subject in Forms I. and II.
3. Physics should be commenced not later than in Form II., should be obligatory for all pupils, and in Form II. should be somewhat of the nature of the present Pt. I. Matriculation Course.
4. Physics should be made obligatory for teachers' Junior and Senior Leaving non-professional certificates.
5. Should Chemistry be optional for teachers' certificates?
6. Optional group for Form IV. and Senior Leaving: Chemistry and Biology, as at present; or Chemistry and Mineralogy; or Chemistry and Entomology (economic).

The foregoing embraces some alterations suggested by the Association after a rather full discussion.

Upon motion of Dr. Muldrew and Mr. Mills, the Secretary was instructed to have the Hon. President's address printed in the Proceedings.

Owing to the absence of Prof. Wright in Europe, his address was read by Dr. Stafford. It was an interesting account of his work of securing specimens for the University Museum, and also a description of the work done in investigating the cause of malaria. The researches of Dr. Grassi have shown "that mosquitoes of the genus *Anopheles* are the definitive hosts of the malarial parasite which passes through its phases of asexual multiplication in the blood of man."

The Association met again at 2 p.m., President Ellis in the chair.

J. R. Hamilton, B.A., Brantford, took up the subject of a Biological Survey of Ontario. He said that the Science Masters were in a position to do such work and were well qualified. He further showed its importance from several standpoints.

Dr. Stafford and others took part in the discussion following.

E. L. Hill, B.A., Guelph, then dealt with Local "Nature" Observations. He told of the valuable work done in Nova Scotia through the energy of Dr. MacKay, Chief Superintendent of Education. Blanks were sent out to all Public School teachers in Nova Scotia to be returned with the Annual Report. The blanks contained such items as the time of flowering of many common plants, first appearance of birds, meteorological phenomena, etc.

W. H. Muldrew, M.A., D.Pæd., Gravenhurst, gave a highly interesting account of the manner in which the High School grounds had been used as a sort of arboretum. Several hundred trees had been set out, and an effort was being made to secure representatives of all indigenous trees. Dr. Muldrew also showed his plan of diagnosing trees by their leaves.

*MINUTES OF THE CLASSICAL SECTION.*

TUESDAY, APRIL 17TH, 1900.

The Association met at 10.30 a.m., the President, Mr. S. F. Passmore, in the chair.

Moved by Mr. Strang, seconded by Mr. Carruthers, that the Minutes of the Association for 1899 as printed in the Proceedings be taken as read. Carried.

Moved by Mr. Fenton, seconded by Mr. Mayberry, that the morning's programme be altered, that Mr. Bonis' paper be taken first, and that the Association adjourn at 11.15. Carried.

Moved by Mr. Robertson, seconded by Mr. Strang, that Mr. Stoddart be appointed press reporter. Carried.

Mr. Bonis' paper on "Aims and Methods in the Teaching of Latin," was, in the writer's absence, read by the Secretary. Mr. Bonis held that the changed position of classics as a factor in education calls for a reconsideration of the aims and methods of our secondary school teaching of Latin. In particular he pointed out how valuable from the scientific as opposed to the humanistic side the proper teaching of Latin might be. In the junior stages the chief benefits derived would be a clearer knowledge of English grammar, a more exact knowledge of English words from knowing the Latin root words, and the training in accuracy of expression. As means to this end Mr. Bonis advocated greater attention to English-Latin vocabularies, the careful use in the class of induction, and greater use of the outward signs of agreement in a highly inflectional language. When the stage of reading authors is reached, where the humanistic side becomes prominent, the scientific side is still of the utmost importance, and most valuable work can be done in training pupils in the clear and accurate expression of thought, avoiding the extremes of looseness and wooden literalness. In the higher forms too much can be done in gaining an appreciation of the comparative worth of literatures, and the significance of ancient thought in the development of civilization.

The meeting then adjourned, almost all the members embracing the opportunity of hearing a most interesting and valuable paper by Prof. Baker before the Mathematical and Physical Association, on "The Science of the Greeks and the Debt we owe them."

The afternoon's session opened at 2 p.m. The Treasurer's finan-

cial statement for the years 1898-1900 was read, and on motion of Mr. Smith and Mr. Mayberry was adopted.

Mr. R. D. Coutts read a paper on "The Poetical Work of Virgil and Milton."\*

After some discussion by Mr. Coombs and Prof. Fletcher, a paper was read by Mr. W. S. Milner on "Roman Education."†

The last paper of the session was by Prof. P. S. Campbell on "Socrates."†

In the evening the members took supper together at Webb's.

### WEDNESDAY, APRIL 18TH, 1900.

The Association met at 9.30 a.m. Before the election of officers it was moved by Mr. Jolliffe, seconded by Mr. Mayberry, that the sum of \$15 be voted the Secretary for his services. Carried.

The following were elected as the officers for 1900-01:

<i>Hon. President</i>	-	J. W. Flavelle, Esq.
<i>President</i>	-	W. S. Milner, M.A.
<i>Vice-President</i>	-	W. N. Bell, B.A.
<i>Secretary-Treasurer</i>	-	J. C. Robertson, B.A.
<i>Councillors</i> —C. S. Kerr, B.A.,		Miss F. E. Kirkwood, B.A.,
		D. A. Glassey, B.A., G. W. Johnston, B.A.,
		Ph.D., R. D. Coutts, B.A., C. A. Mayberry,
		B.A., LL.B., A. Carruthers, M.A., E. Coombs,
		M.A., B.Paed.

Messrs. S. F. Passmore, M.A., and W. J. Fenton, B.A., were appointed auditors.

On motion of Mr. Robertson and Mr. Smith, a committee consisting of Prof. Hutton, Mr. Strang and Mr. Mayberry was appointed to draft a resolution regarding the Flavelle Travelling Fellowship.

Dr. Johnston then read a paper, entitled "Some Recent Investigations in the Latin Subjunctive."\*

The paper was discussed by Messrs. Hagarty, Smith, Robertson and Strang.

Mr. A. Carruthers then read a paper, entitled "Greek Art," an abstract of which appears in the Proceedings.

Moved by Mr. Mayberry, seconded by Mr. Henderson, that the Executive Committee be instructed to provide, in connection with next year's meeting, for a reunion dinner, for which the Committee

\* This paper is published in the Proceedings.

† The Secretary regrets to state that abstracts of these papers could not be secured in time for publication in the Proceedings.



is to arrange the details, having liberty to draw upon the funds of the Association for that purpose. Carried.

The meeting then adjourned.

The afternoon session was begun at 2 p.m., Mr. Carruthers, in the temporary absence of the President, being voted to the chair.

Mr. French read his paper on "The Belief of the Romans with regard to Immortality." Mr. French gave first a review of the attitude of the philosophic schools of the Stoics and Epicureans to this question, and then gave a very complete analysis of the references to immortality in the works of Roman writers of the classical period. A discussion followed on certain phases of the subject, in which Messrs. Hutton, Robertson and Milner took part.

The President, S. F. Passmore, read a paper on "The Relation of English Grammar to the Study of Latin."\*

Mr. E. Coombs' paper followed on "Conditions under which Classics is Popular."

The reader contended that the study of Classics should be begun as early as possible. Twelve was not too young an age. The ordinary High School pupil did not start until he was about fourteen. Latin and Greek should be taught every day. The difficulty of these languages is such that it can only be overcome by daily lessons. Heretofore, too much Cæsar and Virgil has been required. We should aim at quality and not quantity. A number of shorter pieces like "Traumereien" in German should comprise the work in Latin. Our classes are poor in pronunciation because quantity of vowels can not be properly taught in the limited time. Cæsar is not a suitable author, as it is monotonous and affords a low view of Roman life. Cato Major has a better ring about it. The best teachers should teach the junior classes. Much drill on rudiments is necessary in order that the pupil may not be crippled when he comes to read Latin. The Roman method of pronunciation has not made the study of Classics more popular. With the disappearance of the English method of pronunciation has gone a clue to the meaning of many words which a beginner formerly readily seized upon. The study of related words is a fine aid to memorizing a vocabulary. Those who prepare our text-books would help the student if they would indicate the related words after the method used in White's Beginner's Greek Book. Prof. Hale's method of reading Latin must be

\*This paper is published in the Proceedings.

supplemented in most cases by the old method of "subject first." An English mind does not readily follow the Latin order, and many Latin sentences are of such a kind that no amount of training will induce the habit of taking words in the order in which they stand. The chief thing in making our classes popular is enthusiasm. The wide-awake teacher will soon secure a wide-awake class and the subject will be loved.

The paper was discussed by Mr. Connor and Mr. Hagarty.

The following motion was introduced by Prof. Hutton, seconded by Mr. Henderson, and carried: "By the Classical Association of Ontario be it resolved: That this Association expresses its appreciation of the action of Mr. J. W. Flavelle in offering to the Classical Department of Toronto University in the year 1901 a travelling fellowship for two years tenable at Oxford. Quite apart from the benefits thus conferred on Classical Studies, Mr. Flavelle is entitled to the credit of taking one of the first steps to supply that which is the conspicuous need of Ontario, the formation of a healthy public spirit in relation to the Provincial University, such as already obtains in the neighboring Province of Quebec and through the length and breadth of the United States, and the consecration of wealth to the cause of higher learning and general enlightenment."

The concluding paper was by Prof. Hutton on "Herodotus."

On motion of Mr. Robertson, seconded by Mr. Fenton, Mr. J. Henderson was appointed representative on the Committee of the College and High School Department.

The meeting then adjourned.

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### *MINUTES OF THE MATHEMATICAL AND PHYSICAL SECTION.*

TUESDAY, APRIL 17TH, 1900.

The Section opened at 10.50 a.m., the President, J. H. McGeary M.A., in the chair.

On motion, Dr. Birchard was appointed press correspondent.

The President then delivered his address, in which he clearly outlined his method of dealing with a first year's course to junior pupils in Elementary Algebra.

Prof. Baker was called upon, and read a most interesting and

instructive paper on "The Science of the Ancient Greeks, and the Debt we owe them." Taking up the subjects of Arithmetic, Theory of Numbers, Algebra, Geometry, Conics, the Calculus, Astronomy and Physics, he showed what advances had been made by the Greeks in each case.

The Classical Section was present at the address.

A hearty vote of thanks was moved by Mr. J. C. Robertson, of the Classical Section, seconded by Mr. A. MacMurchy, and carried.

Mr. Robertson gave the information that hereafter all papers sent in from the different Sections would be printed in the Proceedings of the O. E. A.

The meeting then adjourned.

The afternoon session opened at 2.40 p.m., the President in the chair.

The minutes of the morning meeting were read, and, on motion, approved.

Mr. Crawford not being present, the election of officers for the ensuing year was proceeded with, resulting as follows:

<i>Hon. President</i>	-	-	J. H. McGeary, M.A.
<i>President</i>	-	-	R. A. Gray, B.A.
<i>Vice-President</i>	-	-	W. E. Rand, B.A.
<i>Secretary-Treasurer</i>	-		R. Gourlay, B.A.
<i>Councillors</i>	-	-	W. S. Robertson, B.A., J. L. Cox, B.A., W. Taylor, B.A., A. T. DeLury, B.A., S. Martin, B.A., A. C. Mc- Kay, B.A., J. L. Crawford, B.A., G. H. Hogarth, B.A.

Representative to the College and High School Department, Dr. Birchard.

Moved by W. E. Rand, seconded by W. S. Cody, that, hereafter, there be three sessions of the Mathematical Section, the afternoon of the first day, and the morning and afternoon of the second day. Carried.

To a combined meeting of the Training Department and Mathematical Section, W. Taylor, B.A., gave an address on his method of teaching Arithmetic.

The address was followed with the deepest attention and interest.

The meeting then adjourned.



WEDNESDAY, APRIL 18TH, 1900.

The Section assembled at 10.20 a.m., with the President in the chair.

The minutes of the last meeting were read and approved.

A paper, entitled "Mathematics in the School-Room," was read by W. J. Robertson, B.A., LL.B.

Discussion followed, in which Messrs. Martin, Taylor, Crassweller, Slemin and Steele took part.

G. Hammill, B.A., read a paper on "The Study of Euclid in our Schools. Are the Results Satisfactory?"

A keen discussion followed in which Messrs. Taylor, Dobson, Steele, Davison, Martin, Robertson, and the President expressed their views.

The meeting then adjourned.

The afternoon meeting, being a joint meeting of the Mathematical and Natural Science Sections, was held in the Physical Laboratory of Toronto University at 4 p.m.

An illustrated lecture was given by W. J. Loudon, B.A., on "How Water Freezes."

By means of two scientific experiments he clearly showed that water did not become ice until a temperature of about  $-12^{\circ}\text{C}$  was reached.

He also gave an explanation for the re-freezing of a block of ice, when cut in two parts, by a fine wire under the action of gravity.

The Section then adjourned.

R. GOURLAY,  
*Secretary.*

### *MINUTES OF HISTORICAL SECTION.*

TUESDAY, APRIL 17TH—10 A.M.

A joint meeting was held with the Modern Language Section.

Professor Adam Shortt, of Queen's University, the President of the Historical Section, read a paper on "The Beginning of Municipal Government in Ontario." In the absence of Mr. W. Wilfred Campbell, Mr. J. Home Cameron read a paper on "Realism in Modern Literature."

2 p.m.—Mr. A. C. Casselman read a paper on "The Study of History," and was followed by Mr. Donald C. McFayden, with a paper on "A Mediæval Churchman."

WEDNESDAY, APRIL 18TH—2 P.M.

The election of officers for the year 1900-01 was held. The following were elected :

<i>President</i>	-	-	W. S. Milner, M.A., Toronto.
<i>Vice-President</i>	-	-	A. C. Casselman, Toronto.
<i>Secretary-Treasurer</i>	-	-	William C. Michell, B.A., Jarvis Street Collegiate Institute.
<i>Councillors</i>	-	-	Miss Nellie Spence, B.A., Toronto; Miss Janet Carnochan, Niagara; Miss Alice Kelso, London; Prof. H. J. Cody, Toronto; Prof. G. M. Wrong, Toronto; Prof. Adam Shortt, Kingston; Wm. Houston, M.A., Toronto; David Boyle, To- ronto; Adam Carruthers, M.A., Toronto.

Representative to College and High School Department —  
W. J. Robertson, M.A., St. Catharines.

Major A. G. Henderson, of Whitby, then gave an address on "A Canadian Heroine."

Lieut.-Col Cruikshank, of Fort Erie, read a paper on "Immigration from the United States to Canada, 1784-1812—Its Character and Results."

#### MINUTES OF THE COMMERCIAL SECTION.

TUESDAY, APRIL 17TH.

The Commercial Association, which was to have met on this date at 11 o'clock, was not called to order on account of the absence of the President.

In the afternoon the Secretary read a letter from the President explaining his inability to be present until Wednesday morning. Owing to the absence of one of those whose names appeared on the programme for the afternoon session, the Vice-President decided to request the other gentleman to withhold his paper until the next morning. Having done so the meeting was not called during the afternoon either.

## APRIL 18TH.

The meeting of the Commercial Association was held in Mr. Murray's room at this date, with the President, W. J. Dobbie, M.A., in the chair. The meeting was opened in the usual manner by the President.

The minutes of the last meeting were read and approved.

Moved by E. E. C. Kilmer, seconded by J. S. Black, that Mr. Ward be press reporter. Carried.

Moved by J. A. Dickenson, seconded by D. Young, that Mr. Kilmer and Mr. Underhill be auditors. Carried.

Mr. Young then read his paper on "The Commercial Diploma." It was an admirable review of the growth of commercial education, its present status and its future outlook.

Messrs. Johnson and Dickenson took part in the discussion that followed.

It was moved by Mr. Kilmer, seconded by Mr. Henderson, that Mr. Young's paper be printed in the minutes of the Association, and that it be handed over to the Executive Committee, that a digest of it be prepared and presented to the Minister of Education, and that he be urged to carry out the suggestions therein contained. Carried.

Mr. Copeland, of the firm of Copeland & Chatterson, read a very interesting paper on "The Perpetual Ledger, or the Loose Leaf System." He very kindly provided himself with samples of the beautiful books prepared by his firm, and explained their peculiar construction.

Prof. Bell-Smith, R.C.A., followed with a very interesting talk on "Drawing."

## AFTERNOON, WEDNESDAY, APRIL 18TH.

The session for the afternoon was opened by a very interesting talk on "Business Shorthand," by G. W. Johnson, F.C.A. Mr. Johnson made the importance of his simplified system very clear to his hearers, and very kindly presented them with copies of his small manual.

The President read Mr. Charlesworth's paper on "Composition." It proved a very instructive one.

The Auditors' report was then received.

Moved by J. A. Dickenson, seconded by E. E. C. Kilmer, that the Secretary be appointed as delegate to the General Association. Carried.

The following officers were elected for the coming year :

<i>President</i>	-	-	Wm. Ward, Kingston.
<i>Vice-President</i>	-	-	J. S. Black, Chatham.
<i>Secretary-Treasurer</i>	-	-	E. E. C. Kilmer, Aylmer.
<i>Councillors</i>	-	-	G. W. Johnson, Toronto : D. Young, Guelph : J. A. Underhill, Port Perry ; J. A. Dickenson, London ; T. C. Doidge, Orillia : R. H. Eldon, Toronto.

The meeting then adjourned at 3 p.m.

### *MINUTES OF PUBLIC SCHOOL DEPARTMENT.*

TUESDAY, APRIL 17TH, 1900.

This Department was called to order in the Drill Hall of the Normal School, at 10.15 a.m., the chairman, Mr. Geo. M. Ritchie, of Toronto, presiding.

Rev. Thos. Cobb read a portion of Scripture, and engaged in prayer.

Mr. W. L. Richardson, Toronto, was appointed minute secretary ; and Mr. M. W. Matchett, Peterboro', was elected press reporter, on motion of Mr. R. A. Ward, Toronto, and Mr. D. Young, Guelph.

On motion of Mr. S. T. Young, Hamilton, seconded by Mr. McQueen, London, the minutes as printed in the Proceedings of 1899 were adopted.

Mr. Chas. G. Fraser, Toronto, then presented the Treasurer's report, showing an expenditure of \$24.35, and a balance of \$15.00, with one account still to be paid.

It was moved by Mr. H. Ward, Toronto, and seconded by Mr. McQueen, London, that the Treasurer's report be received and submitted to the auditors. Carried.

E. W. Bruce, M.A., Toronto, read the Secretary's report, outlining the work done by Mr. John R. Brown, who had resigned the position of Secretary on account of leaving the profession to enter journalism, and also his own efforts to prepare the programme.

On motion of Mr. S. Y. Taylor, Paris, seconded by Mr. R. H. Knowles, Hespeler, the Secretary's report was adopted.

A. T. Cringan, Mus.Bac., then gave an address on "Methods in Teaching Music." The methods were illustrated with a class of pupils from Hamilton Street School, Toronto. Afterwards, the class, led by their teacher, Mr. J. Wallis, rendered several part songs.

Upon motion of Mr. E. T. Young, Hamilton, seconded by Mr. McQueen, London, a hearty vote of thanks was accorded to Mr. Cringan for his instructive address, and to Mr. Wallis and his class for the music.

Mr. Chas. G. Fraser, Toronto, then made a verbal report of the interview the Committee had with the Hon. Richard Harcourt, M.A., Q.C., the Minister of Education, regarding the resolutions passed by the Public School Department last year.

Mr. H. Ward, Toronto, and Mr. Alex. McQueen, London, who had been appointed auditors, reported having examined the Treasurer's report, and found it correct.

The meeting then adjourned until 2 p.m.

#### AFTERNOON SESSION.

At 2 p.m. a joint meeting of the Inspectors', Training and Public School Departments was held in the Drill Hall, Inspector W. E. Tilley, M.A., in the chair.

W. J. Alexander, B.A., Ph.D., read a paper, entitled "A Study of Literature," discussing some selections from Shelley, Keats and Wordsworth.

The hearty thanks of the meeting were tendered Prof. Alexander for his excellent paper.

Mrs. J. Hoodless, Hamilton, then read a paper on "Domestic Science as an Educational Factor."

The discussion which followed was conducted by Inspector J. H. Smith, of Wentworth; Inspector W. F. Chapman, of Toronto; Mr. H. Gray, of Toronto; Mr. R. H. Knowles, of Hespeler; and Mr. W. J. Osborne, of Bloomfield.

On motion of Mr. R. A. Ward, Toronto, seconded Mr. Chas. G. Fraser, the thanks of the meeting were tendered to Mrs. Hoodless for her able paper. Messrs. R. H. Knowles, Hespeler, and Wm. Linton, Galt, spoke to the motion.

WEDNESDAY APRIL 18TH, 1900.

The Chairman called the meeting to order at 9.30 a.m.

The minutes of previous sessions were read, amended and adopted.

The following notices of motion were then received :

(a) By Mr. W. J. Osborne, seconded by Mr. J. M. Roote, regarding the time devoted to arithmetic.

(b) By Mr. D. Hetherington, seconded by Mr. Jas. E. Painter, regarding the formation of a Teachers' Union for the Province.

(c) By Mr. Duncan Whyte, seconded by Mr. C. B. Latta, regarding the age at which pupils should enter all Public Schools except the Kindergarten.

(d) Mr. Chas. G. Fraser advised the discussion of the resolutions adopted by the Public School Department last year.

Mr. E. T. Young, Hamilton, then took the chair and called on the Chairman of the Department, Mr. Geo. M. Ritchie, who read a very valuable and instructive paper on "Teachers' Associations."

Mr. W. J. Osborne told of the working of Township Teachers' Associations and the benefits to be derived therefrom.

It was moved by Mr. W. F. Moore, Dundas, and seconded by Mr. S. J. A. Boyd, Exeter, that the Chairman's address be referred to the Printing Committee. Carried.

Mr. Ritchie resumed the chair, and A. Hamilton, M.A., M.D., Toronto, then addressed the meeting on "The Outlook for Better Spelling." Messrs. W. F. Moore, L. T. Locheed, M.A., R. H. Knowles and Alex. McQueen took part in the discussion which followed.

It was moved by Mr. L. T. Locheed, and seconded by Mr. W. F. Moore, that this Department of the Ontario Educational Association heartily endorse the movement for better spelling as outlined by Dr. Hamilton, and would respectfully urge the Educational Department to take action in the matter and appoint a committee to formulate means to bring about this most desirable educational and economic object, and also to publish a list of words usually spelled in two or more ways, signifying where the two forms are equally acceptable, and where one form is to be avoided.

It was moved in amendment by Mr. Alex. McQueen, and seconded by Mr. A. H. Musgrove, that the whole question of spelling be referred to a committee to be named by the Chairman.

Mr. Locheed withdrew his motion and the amendment carried.

The Chairman then named Messrs. Chas. G. Fraser, W. F. Moore, Alex. McQueen, R. H. Knowles and L. T. Locheed, a committee to consider the matter of spelling reform and report to the meeting.



The election of officers was then proceeded with, and resulted as follows :

<i>Chairman</i>	-	-	-	Mr. E. T. Young, Hamilton.
<i>Vice-Chairman</i>	-	-	-	Mr. W. F. Moore, Dundas.
<i>Secretary</i>	-	-	-	Mr. Chas. G. Fraser, Toronto.
<i>Director</i>	-	-	-	Mr. S. Y. Taylor, Paris.
<i>Treasurer</i>	-	-	-	Mr. W. L. Richardson, Toronto.
<i>Executive Committee</i>	-			Mr. S. J. A. Boyd, Exeter; Mr. W. D. Spence, St. Mary's; Mr. R. H. Knowles, Hespeler.

The meeting then adjourned until 2 p.m.

#### AFTERNOON SESSION.

On resuming after the noon recess, Prof. Robertson was unavoidably absent, and Dr. Waugh, of Whitby, read a valuable paper on "Educational Psychology" to a joint meeting of Inspectors', Training and Public School Departments.

Messrs. McBrien, McAllister and Barber discussed the subject, and on motion of Inspectors Tilley and Brown the thanks of the meeting were tendered Dr. Waugh for his paper.

Dr. W. E. Tilley, Chairman of the Inspectors' Department, then took the chair, and called on the Rev. W. H. G. Colles for his paper on "Exhibits of Public School Work at Teachers' Institutes." The speaker had on exhibition a large quantity of pencil and pen work, map-drawing, etc., as well as diplomas awarded for efficiency, to illustrate his paper.

"Undue Attention to Arithmetic in the Public Schools" was the subject of the paper then read by Inspector G. D. Platt, B.A., of Prince Edward County.

It was moved Mr. Geo. M. Ritchie, and seconded by Mr. E. T. Young, that the thanks of this meeting be tendered to Mr. Platt for his paper. Carried.

On motion of Inspector Dearness and Inspector Brown, the thanks of the meeting were tendered to Mr. Colles for his paper. Carried.

The meeting then adjourned.

THURSDAY, APRIL 19TH, 1900.

In the temporary absence of the Chairman, Mr. E. T. Young, the Director, took the chair and called the meeting to order.

The minutes of the previous meeting were read and adopted.

Mr. Ritchie then took the chair.

Mr. W. R. Manning read a paper on "The Necessity for Religious Instruction in our Schools."

On motion of Mr. E. T. Young, seconded by Mr. A. H. Musgrove, each speaker in the discussion on this paper was limited to three minutes.

The following then took part in the discussion: Mr. A. H. Musgrove, Wingham; Mr. Chas. G. Fraser, Toronto; Mr. E. T. Young, Hamilton; Mr. W. F. Mackenzie, Marden; Miss Meldrum, Toronto; Miss Grier, Thornbury; Mr. W. F. Moore, Dundas; Mr. W. J. Osborne, Bloomfield; Mr. M. W. Matchett, Peterboro', and Mr. W. D. Spence, St. Mary's.

On motion of Mr. S. J. A. Boyd, Exeter, and Mr. G. A. Meiklejohn, Tweed, the thanks of the meeting were tendered Mr. Manning for his excellent paper.

That teachers should take a prominent part in preparing the subject-matter of School Readers was discussed by Mr. E. T. Young and Mr. A. H. Musgrove, and Mr. L. T. Locheed gave the first three lessons in reading as he would propose, on the phonic system.

It was moved by Mr. William Linton, Galt, and seconded by Mr. W. F. Moore, Dundas, that Public School teachers should take a prominent part in the preparation of all books for use in the Public Schools. Carried.

It was moved by Mr. Chas. G. Fraser, and seconded by Mr. R. H. Knowles, that this Department express its approval of the steps that have been taken by Mr. Locheed in the matter of bringing about a good set of school readers. The discussion was carried on by Mr. Henry Ward, Toronto; Mr. D. Young, Guelph; Mr. R. H. Knowles, Hespeler; Mr. Chas. F. Fraser and Mr. Beatty, and upon being put, the motion was declared lost.

It was moved by L. T. Locheed, M.A., Toronto, and seconded by Mr. R. Nelson, that a committee be appointed by the Chairman of the Public School Department of the O.E.A., etc. (See Resolution 17, in the appended copy of circular letter.) Carried.

The meeting then adjourned.

#### AFTERNOON SESSION.

Meeting was called to order at 2.20 p.m., Mr. Geo. M. Ritchie in the chair.

The consideration of the Report of the Committee appointed by the General Association to consider the matter of the preparation of teachers was the first question discussed.



It was moved by Mr. H. Gray, Toronto, and seconded by Mr. E. T. Young, Hamilton, that the consideration of the report of the Committee on the Preparation of Teachers be left over until the next meeting of the Association. Carried.

It was moved by Mr. H. Ward, and seconded by Mr. W. D. Spence, St. Mary's, that this report be printed and sent to the various County Teachers' Institutes, and that they be requested to report their opinions to the Secretary of the Public School Department.

The notices of motion were then considered.

It was moved by Mr. W. J. Osborne, seconded by Mr. J. M. Roote, that this Public School Department of the Ontario Educational Association is of the opinion that the Public School programme should be modified so that less time and attention shall be devoted to the teaching of Arithmetic than obtains at present, and earnestly requests our Educational authorities to move in the matter without unnecessary delay. Carried.

It was moved by Mr. D. C. Hetherington, and seconded by Mr. Jas. E. Painter, that in the opinion of this Department of the Ontario Educational Association, it is desirable that a Teachers' Union should be formed in the Province of Ontario, having for its object increase of salaries, protection of salaries, protection from "state salary" advertisements, the furnishing of information to teachers regarding situations, etc. Lost.

Moved by Mr. Duncan Whyte, and seconded by Mr. C. B. Latta, that it is the opinion of this Department of the Ontario Educational Association that the age for entrance to the Public Schools, except Kindergartens, be raised to six years. Carried.

It was moved by Mr. G. A. Meiklejohn, and seconded by Mr. Hartley, that a summary of Dr. Waugh's paper be published in the Proceedings of this Association. Carried.

Mr. Chas. G. Fraser then submitted the report of the Committee on Spelling Reform. (See Resolution 14 in the appended copy of circular letter.)

It was moved by Mr. Chas. G. Fraser, and seconded by Mr. W. F. Moore, that the report be adopted. Carried.

It was moved by E. W. Bruce, M.A., and seconded by Mr. Chas. G. Fraser, that this Department ask the General Association for \$20.00 for printing. Carried.

It was moved by E. W. Bruce, M.A., and seconded by Mr. G. A. Meiklejohn, that the fee for this Department be 25 cents next year. Carried.

It was moved by Mr. Bruce, and seconded by Mr. Spence, that a summary of Mr. Boyd's paper, read at last year's meeting, be printed in the Proceedings this year. Carried.

It was moved by Mr. J. Bennett, Toronto, and seconded by Mr. S. Y. Taylor, that the sum of \$10.00 be granted to the Secretary and \$2.00 to the Minute Secretary and the Press Reporter. Carried.

It was moved by Mr. E. T. Young, and seconded by Mr. Chas. G. Fraser, that Mr. S. McAllister, the mover and the seconder, Mr. A. MacMillan and Mr. J. Bennett be a committee to consider and compile resolutions and present them to the Minister of Education. Lost.

It was then decided to consider the resolutions passed last year by the Department. Clauses 4, 5, 11, 12 and 15 were struck out. The others were readopted.

It was moved by Mr. E. T. Young, and seconded by Mr. Chas. G. Fraser, that Mr. S. McAllister, Mr. A. McMillan, Mr. J. Bennett and the mover and seconder be a committee to wait on the Minister of Education to present and urge the resolutions passed by this Department. Carried.

It was moved by Mr. Chas. G. Fraser, and seconded by Mr. W. D. Spence, that the Chairman, Vice-Chairman, Secretary, Director and Treasurer of this Department be a committee to draw up a suitable set of Literature lessons for entrance, as suggested in Resolution 13 of this year's circular, and present the same to the Minister of Education for his adoption. Carried.

The Department then adjourned.

CHAS. G. FRASER,  
*Secretary.*

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## SECRETARY'S REPORT.

TORONTO, April 17th, 1900.

Mr. President, Ladies and Gentlemen,—As you are aware, Mr. John R. Brown was elected Secretary of the Public School Department, Ontario Educational Association, a year ago. Shortly afterwards he resigned his position as principal of the Model School in Napanee to take up journalism. He is now the editor as well as joint owner of *The Independent*, the leading weekly of Lincoln County. Not being closely in touch with the profession now, and finding the duties of his new position requiring all his time, he resigned the secretaryship.

Your President, Mr. G. M. Ritchie, advised me of this, and said it was the wish of the Executive that I be asked to accept the position. I may add that Mr. Brown asked me to kindly convey his thanks to the members of the Public School Section for the honor they conferred upon him, and to assure them that he shall always cherish the highest esteem for the profession of which he was a member for over twenty years. I have met very often with your President since, who has kept up a regular correspondence with Mr. E. T. Young, of Hamilton, your Director.

Your presiding officers have been very anxious that the programme for the thirty-ninth convention should not be behind those of former years. By persistent correspondence they have procured the names on the programme now in your hands. They wished the programme to be not only as practical and useful as possible, but that the papers be in keeping with modern ideas of education. They also wished to conform to the expressed desires of the members during the last two conventions, that is, to have fewer papers and more topics for discussion on the immediate needs of the profession.

We trust that the carrying out of the programme for this year will make us all think more of the good work we are doing, and will increase in us renewed efforts for better work.

E. W. BRUCE,  
*Secretary.*

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## PUBLIC SCHOOL DEPARTMENT.

TORONTO, April 20th, 1900.

The following resolutions were passed by the Public School Department at the meeting of the Ontario Educational Association, during Easter vacation, April 17th, 18th and 19th, 1900.

They are intended for consideration by each County Teachers' Institute. The results of the deliberations are respectfully solicited. Any opinions received will be presented at the next meeting of the Ontario Educational Association.

CHAS. G. FRASER,  
*Secretary Public School Dept., O.E.A.,*  
83 McKenzie Crescent, Toronto.

## RESOLUTIONS.

1. That no certificate to teach be granted to any person under 21 years of age.
2. That the Training Term in the Model School be extended to one year.
3. That graduates of the School of Pedagogy, who have not been trained at a Model or Normal School, should not be permitted to teach in the Public Schools.
4. That it is a matter of regret that the Minister of Education has made Latin a compulsory subject for Junior and Senior Leaving Certificates, and that he be requested to restore the options as they have existed heretofore.
5. That it is a matter of regret that the Minister has abolished the granting of Specialists' Certificates (Non-professional) to all but those obtaining the degree of B.A.
6. That the qualification for Inspectors' certificates be, First-Class Certificates of five years' standing and the Degree of Bachelor of Pedagogy from Toronto University, with an experience qualification of at least ten years' teaching, five of which shall have been spent in Public School work so as to cover the teaching of all the grades.
7. That the Public School Department of the Ontario Educational Association desires to thank the Minister of Education for the appointment of a Public School Teacher to the Educational Council, but would urge that representation, in justice to Public School interests, should be increased to at least three members.
8. That the Annual Meetings of County Teachers' Institutes be held during two consecutive days, of which Saturday be not one.
9. That the basis of apportionment of Legislative Grant be dependent upon the following:
  - (a) Building and equipments.
  - (b) Average attendance.
  - (c) Amount of salary paid to teachers.
10. That the text-book on History be remodelled, and the subjects treated in English History be the Great Epochs.
11. That the work in Entrance History be all of Canadian History and a period of British History taken from the beginning of the Tudor period to the present time.
12. That hereafter no examination in History be required for High School Entrance, this step to be taken with the view of having better teaching done in this subject.

13. That the Honorable the Minister of Education be requested to arrange for a four years' course of Literature selections from the Fourth Reader for the Entrance Examination. That the President, the Vice-President, the Secretary, the Director and Treasurer of the Public School Department be a committee to draw up such a course of lessons from the Fourth Reader and request the Honorable the Minister of Education to adopt such selection.

14. That this Department of the Ontario Educational Association approve of the movement for better spelling as outlined by Dr. Hamilton, and that a committee consisting of A. Hamilton, M.A., M.D., L. T. Lockheed, M.A., and Chas. G. Fraser, the Secretary of the Public School Department, Ontario Educational Association, be a committee to prepare a list of words which are commonly spelled in more than one way, indicating:

(a) Where the two forms are equally acceptable;

(b) Where one form is to be avoided;

also, a list of words for which an approved form of spelling is suggested on account of pronunciation, derivation, or analogy.

That the teachers of this Province be requested to send, to the Secretary of this department, a list of the words they wish to have included in this list.

That the Honorable the Minister of Education be requested to publish this list of words and distribute it among the teachers of this Province, to be discussed at the next meeting of this Association, with a view to its adoption.

15. That the age for entrance to the Public Schools, except Kindergartens, be raised to six years.

16. That Public School teachers should take a prominent part in the preparation of all books for use in the Public Schools.

17. That a committee be appointed by the President of the Public School Department of the Ontario Educational Association to request all teachers to submit, through the Secretary of this department:

(a) Subject-matter for a proposed new set of readers;

(b) Lists of objectionable lessons in the present readers, pointing out the reasons for objection;

(c) Adaptations and selections of good lesson-matter from all sources possible.

18. That the Public School programme should be modified so that less time and attention shall be devoted to the teaching of arithmetic than obtains at present.



19. That a permanent committee (the Executive Committee) be appointed from this department to bring clearly before the Local Associations of the Province the importance of a good attendance of the Public School Teachers at this Association.

20. That each Local Association be urged to send at least one duly accredited representative each year, and we would further recommend that if two are sent that not both of these delegates be changed in each succeeding year.

21. That it be a request to the County Associations to forward to the Minister of Education, to their representatives in the Legislature, and to the Secretary of this department, copies of all such resolutions of a general character as may be passed at their meetings.

22. That this Association communicate by circular with County Teachers' Associations to urge upon them to appoint a committee to interview the local member of the Legislature to represent our claims for a fair representation on the Educational Council, using every effort to secure from him a promise of action at the next meeting of the Legislature.

23. That the incoming Executive Committee be requested to arrange a joint meeting of the Inspectors', Training, and Public School Departments as a Committee on Resolutions, such meeting to be not later than the second day of next session.

24. That the Public School Department at the next session be transformed into a Parliament during the forenoon of each day to discuss live educational questions; also that the Secretary be instructed to have the above resolutions, and the Report of the Committee on the Preparation of Teachers, printed and distributed in pamphlet form to all Public School Teachers throughout the Province, through the Secretaries of the Local Associations.

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#### *KINDERGARTEN DEPARTMENT.*

TUESDAY, APRIL 17TH, 1900.

The proceedings opened with Miss Mackenzie in the chair.

After the adoption of last year's minutes, Miss Macintyre reported that she had conferred with the Minister of Education regarding regulations for Kindergarten students recommended by this department last year—(1) That the minimum age of admission for students in Kindergarten training classes be eighteen years;

(2) That the standard for admission be a second-class certificate, or its equivalent; and (3) That assistants' certificates be limited to two years. The Minister had expressed himself as favoring the proposals. It was decided to send the recommendations to him, urging him to take immediate action.

After a few words of welcome from Mrs. Hughes, Miss Mari Ruef Hofer gave an exceedingly interesting talk on "The Beginnings of Music for Children," especially urging that the child's creativeness be encouraged in music as in other departments.

In the afternoon Mrs. Mary Boomer Page gave a very suggestive and inspiring paper on "The Value and Significance of Play," and then led in a march and a delightful series of games, including whole-circle games, running and ball-games. Miss Hofer sang a number of charming songs, after which refreshments were served by the Toronto Froebel Society, and a social half-hour enjoyed. A hearty vote of thanks was tendered Miss Hofer and Mrs. Page, and the meeting adjourned.

WEDNESDAY, APRIL 18TH, 1900.

The minutes of Tuesday's meeting were read and adopted.

Miss Macintyre reported for the Committee appointed to consider a Reading Course, that it had seemed impossible to plan a uniform course, and it was agreed to let the matter rest.

Moved by Mrs. Hughes, seconded by Miss Morris, that this Department recommend that the age of admission for children into the Public Schools be raised to six years, the Kindergarten age to remain from four to seven years, with power in the hands of the trustees to raise the age of admission to five years in crowded districts. Carried.

Miss Warner moved a hearty vote of thanks to the Toronto Froebel Society for their kindness in undertaking the entertainment of our American visitors, and for the delightful tea tendered the Association on the previous afternoon. Seconded by Miss Brenton, and carried.

Moved by Miss Anning, seconded by Miss Brenton, that Mrs. Hughes be nominated by our Department as President of the O.E.A. The motion was carried unanimously.

The appointment of Miss Bolton as delegate from our Department to the International Kindergarten Union, now meeting in Brooklyn, was cordially endorsed.

The Secretary-Treasurer presented her annual report. It was

moved by Miss Macintyre, seconded by Miss Morris, that the Association continue in affiliation with the I.K.U., and that a department fee of twenty-five cents be charged to meet current expenses. Carried.

The officers were elected by acclamation.

*President* - - - Miss Edith Anning, Belleville.

*Director* - - - Miss Agnes E. Mackenzie, London.

*Secretary* - - - Miss Jean R. Laidlaw, London.

A Round-Table on "Mothers' Meetings" was conducted by Miss Anning, the members present manifesting great interest in the subject. In the afternoon Miss Macintyre led a Circle in a developing series of games, ball-games, activity and sense games, representative and symbolic games. Members from Ottawa, Toronto, Hamilton and London also showed new games before the members dispersed.

#### THURSDAY, APRIL 19TH, 1900.

After the reading of Wednesday's minutes, the election of Mrs. Hughes to the Presidency of the O.E.A. was announced, and received with applause.

Misses Macintyre, Currie and Anning were appointed a committee to wait upon the Minister, urging immediate action upon the recommendations of the Department *re* Kindergarten students.

It was requested that the papers by Miss Hofer and Mrs. Page be printed in the Proceedings.

Miss Currie gave an interesting account of a week's visit to Chicago Kindergarten Training Schools, including a meeting of the Chicago Kindergarten Club. She emphasized the fact that the work there is thoroughly organized, and the workers very enthusiastic, although there exists great diversity in the work. Members showed their interest in Miss Currie's report by frequent questions.

Miss Laidlaw gave a brief account of the Art-Work seen in Chicago vacation schools last summer.

Mrs. Hughes followed with an inspiring address on the subject of "Household Economics." She urged that no other woman's work is so vital as that of home-making, and that the education of every girl should include study of this, and should result in making a *womanly* woman.

After some discussion of the subject a very profitable meeting was brought to a close.

JEAN R. LAIDLAW,

*Secretary Kindergarten Department.*



*MINUTES OF THE TRAINING DEPARTMENT.*

TUESDAY, APRIL 17TH, 1900.

The Training Department of the Ontario Educational Association met at 10 a.m. in Principal Scott's room.

Mr. R. Alexander, of Galt, who was appointed to fill the place vacated by the late Mr. N. M. Campbell, of St. Thomas, presided, and read an excellent paper on "Manual Training" for his opening address.

The minutes of last year were taken as printed.

The Secretary read communications from Mr. J. C. Linklater, of Gananoque, and Dr. J. A. McLellan, of the Normal College, Hamilton, to the effect that they were unable to be present to take their part on the programme.

On motion it was agreed to empower the Secretary to make the necessary changes in the programme to suit other Departments that are interested.

Mr. J. Suddaby, of Berlin Model School, then read a paper on "Should there be an Examination in History for Entrance?" and concluded his address by moving the following resolution:

"That as the practice of examining pupils on the facts of history for promotion from class to class, or for entrance, prevents the attainment of the true ends of teaching history in the Public Schools, viz., the stirring in the hearts of the pupils a love of the subject and imparting the power of reading history themselves therefore all such examinations should be discontinued."

This resolution was seconded by Principal Scott, of the Normal School, and carried after discussion by Messrs. Connolly, Allen, Lough, Dr. McCabe, Tilley, Scott and Merchant.

Moved by Principal Scott, seconded by Mr. Tilley, and carried, that Messrs. Suddaby and Lough be a committee to draft a memorial on the late Mr. N. M. Campbell, of St. Thomas, and that the same be drafted in the minutes of this Department.

On motion the meeting then adjourned.

WEDNESDAY, APRIL 18TH, 1900.

The Department met at 9.10 a.m.

The minutes of the preceding session were read and confirmed.

On motion by Messrs. Suddaby and Westerfeldt, a committee composed of Messrs. Lough, Suddaby and Scott, was appointed to

wait on the Minister of Education to urge the necessity of putting into practice the resolution on history which was passed at the previous session.

"Learning and the Processes Involved in it" was the subject of a most interesting paper read by Dr. Morgan, of the Normal College, Hamilton.

Discussion followed by several teachers present.

A hearty vote of thanks was extended to Dr. Morgan for his excellent paper, and a request was made that he be asked to allow it to be printed in the Proceedings.

The Printing Committee was then appointed, to be composed of Messrs. Wilson and Scott.

Then followed the election of officers which resulted as follows:

<i>Chairman</i>	-	-	-	Dr. McCabe, Ottawa.
<i>Secretary-Treasurer</i>	-			Win. Wilson, Toronto Junction.
<i>Director</i>	-	-	-	A. Barber, Brampton.

The meeting then adjourned.

THURSDAY, APRIL 19TH, 1900.

The Department met at 9.10 a.m.

The minutes of last meeting were read and confirmed.

Mr. J. Suddaby then presented, on behalf of the Committee, the memorial on the late Mr. N. M. Campbell, of St. Thomas. It read as follows:

"We, the members of the Training Department of the Ontario Educational Association, desire to place on record our sense of the great loss we have sustained in the death of the late Neil M. Campbell.

"As a member of our Association, Mr. Campbell was regular in attendance, scarcely missing a session since its formation. He was earnest and enthusiastic in his efforts to make the meetings a success. He was a ready and able debater, lucid and logical as a speaker, and fearless and honest in his opposition to what he believed to be detrimental to the cause of Education.

"In his death the Province has lost a faithful, energetic and successful teacher. As Principal of St. Thomas Model School he ably filled one of the most important positions in the educational system of our country, the duties of which he discharged up till the very hour of his death.

"We miss his honest, kind and cheery face, his words of wise

counsel, and the warm clasp of his hand, and realizing our own loss, we extend our heart-felt sympathy to his widow and family in their bereavement."

"The Home and the School in Education" was the subject of an excellent address by F. F. Macpherson, B.A., Normal College, Hamilton.

A. B. Shantz, B.A., Principal of the Model School, Caledonia, then read a good paper on "The Authorization of the best Text-Books." A hearty discussion followed.

"The Students' Criticism of Model School Work" was the subject of a paper read by H. R. Scovell, B.A., Principal of Norwood Model School. This paper also brought forth considerable discussion, and it was finally agreed that in future Model School students and Normal School students be asked to write out a report of the term's work.

Moved by H. R. Scovell, B.A., seconded by Mr. Suddaby, and carried, that Mr. Macpherson be asked for a synopsis of his address to be printed in the Proceedings, and also that the thanks of this Department be extended to Mr. Macpherson.

On motion it was agreed that at our next meeting the Executive should try to prevent interruptions while papers are in progress.

The meeting of 1900 was then brought to a close by singing the National Anthem.

WM. WILSON, *Secretary*.

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#### MINUTES OF THE INSPECTORS' DEPARTMENT.

The Inspectors' Department of the Ontario Educational Association met in the library of the Education Department, Toronto, at 10 a.m., April 17th, 1900, Dr. W. E. Tilley, President of the Department, in the chair.

The devotional exercises were conducted by J. H. Knight, of Lindsay.

Minutes of previous meeting were confirmed.

Messrs. Summerby, J. J. Craig and Rev. W. H. G. Colles were appointed a committee to arrange a time-table for the programme.

Chairman's opening address, in which reference was made to parts of the school law of doubtful interpretation.

T. A. Craig was appointed press reporter.

An address by J. J. Kelso on "Children's Aid Society." Remarks on address by J. H. Knight, R. H. Cowley, H. Reazin, W. F. Chap-

man, F. L. Michell and G. D. Platt. A vote of thanks was tendered to Mr. Kelso for his address.

A paper by William Johnston on "Our Training Schools, and Suggested Improvements." Remarks by H. Reazin, Rev. W. H. G. Colles, D. D. Moshier, J. H. Smith, J. C. Morgan and C. A. Barnes. A committee, consisting of C. A. Barnes, R. H. Cowley and William Johnston, was appointed to bring in a report on the subject treated of in the paper.

A paper by Rev. W. H. G. Colles on "Boards of Rural School Trustees: How to Increase their Efficiency." Remarks by William Johnston, James McBrien, H. Reazin, G. D. Platt, Dr. Waugh and R. H. Cowley. Committee to report on paper: The author of the paper, J. J. Craig and N. Gordon.

"Inspector's Report to Trustees," by W. S. Clendenning. After remarks by several, the following committee, W. S. Clendenning, Dr. Kelly, J. J. Craig, H. Reazin, G. D. Platt and A. Odell, was appointed to report on the form of such report.

Joint meeting with other departments in the gymnasium at 2 p.m. "A Study of Literature," by W. J. Alexander, B.A., Ph.D.

#### WEDNESDAY, APRIL 18TH, 1900—9 A.M.

A paper by J. H. Knight on "Compulsory Attendance and the Truancy Act." The subject of "Improvement in Attendance in our Schools" was introduced by R. H. Cowley. Remarks on these subjects were made by W. S. Clendenning, J. S. Deacon and D. D. Moshier. J. H. Knight, J. J. Craig and Rev. W. H. G. Colles were appointed a committee to report on the paper and address.

A paper by H. Reazin on "The Rise and Fall of the Public School Leaving Examination." Discussion by William Irwin, J. J. Craig, Rev. W. H. G. Colles, N. W. Campbell and J. H. Knight. Committee on paper, N. Gordon, J. J. Craig and Rev. W. H. G. Colles.

An address on "English Grammar," by John Johnston. Discussion by James McBrien, G. D. Platt, Dr. Kelly, Rev. W. H. G. Colles and W. Carlisle.

A paper on "Twentieth Century Education," by W. F. Chapman.

John Dearnness introduced P. J. Thompson, the recently-appointed Public School Inspector of East Middlesex, and S. Silcox, the recently-appointed Public School Inspector of St. Thomas.

## ELECTION OF OFFICERS FOR 1901.

<i>President</i>	-	-	-	-	J. Coyle Brown.
<i>Secretary</i>	-	-	-	-	T. A. Craig.
<i>Director</i>	-	-	-	-	A. Odell.

WEDNESDAY, APRIL 18TH, 1900—2 P.M.

Joint meeting in the gymnasium.

A paper on "Psychology," by Dr. Waugh. A vote of thanks was tendered to Dr. Waugh for his paper.

An address by Rev. W. H. G. Colles, on "Exhibits of Public School Work at Teachers' Institutes." A vote of thanks was tendered to Mr. Colles.

A paper by G. D. Platt on "Undue Attention to Arithmetic in Public Schools." A vote of thanks was tendered to Mr. Platt.

THURSDAY, APRIL 19TH, 1900—9 A.M.

*General Business.*

Moved by R. H. Cowley, and seconded by Rev. W. H. G. Colles, that the Executive of the Department be requested to arrange for a half day's joint meeting with the Trustees' Department during the next annual meeting, if such joint meeting be practicable. Carried. Mr. J. H. Knight by request went to the Trustees' Department and obtained its concurrence.

"Improvements in the Course of Study in Public Schools" was introduced by J. S. Deacon. In the discussion following, Rev. W. H. G. Colles, J. C. Morgan, John Johnston, W. F. Chapman, J. H. Smith, Dr. Waugh, J. H. Knight, C. W. Chadwick and A. Embury took part.

Rev. W. H. G. Colles, A. Odell and W. J. Summerby were appointed a Committee on "Resolutions."

The Report of the Committee on "Inspector's Report to Trustees" was presented by W. S. Clendenning. Discussed by W. J. Summerby, C. A. Barnes, Rev. W. H. G. Colles, Wm. Irwin, W. S. Clendenning and J. H. Knight. Moved by W. J. Summerby, and seconded by C. A. Barnes, that the report be allowed to remain on the table for a year. Carried.

Moved by C. A. Barnes, and seconded by R. H. Cowley, that a "Legislative Committee" be appointed consisting of W. F. Chapman, Dr. W. E. Tilley, D. Fotheringham, J. Coyle Brown and the

mover and seconder. Carried. C. A. Barnes was appointed convener of the Committee, and the Secretary of this Department was instructed to inform the Minister of Education of the appointment of the Committee.

C. A. Barnes presented the Report of the Committee on "Our Training Schools and Suggested Improvements." Its consideration was deferred until 1901.

Papers read and outlines of addresses delivered are to be published in the minutes.

Votes of thanks were presented to the retiring officers, and the proceedings of the Department for 1900 declared closed.

J. COYLE BROWN,  
*Secretary.*

W. E. TILLEY,  
*President.*

### MINUTES OF TRUSTEES' DEPARTMENT.

TUESDAY, APRIL 17TH, 1900.

The Fourteenth Annual Convention of the Public and High School Trustees of Ontario began in the Examiners' Room, Education Department, at 2 p.m.

After the registration of Delegates, the President, S. W. Brown, L.D.S., took the chair.

Mr. Leitch, of Brantford, and Mr. Elliott, of Kingston, were appointed to report to the press the daily proceedings.

The Minutes of the Proceedings of this Department, 4th and 5th April, 1899, as printed in pamphlets, were taken as read, and upon motion were adopted.

Mr. John Anderson, of Arthur, and Mr. Chas. McKinlay, L.D.S., of Georgetown, were appointed Auditors.

The following report of the Treasurer was read, received, and referred to the Auditors:

1899-1900.

#### TREASURER'S REPORT, TRUSTEES' ASSOCIATION.

The receipts have been,—

Balance from audit of 5th April, 1899.....	\$38 19
Fees paid by delegates, 1899.....	85 00
Legislative Grant.....	50 00
	<hr/>
	\$173 19



## EXPENDITURE.

Fees paid to Ontario Educational Association .....	\$28 00
Printing pamphlets and circulars .....	56 50
Distribution of " " and letters.....	12 65
Allowance to Secretary-Treasurer.....	40 00
Balance on hand .....	36 04
	<hr/>
	\$173 19

GEO. ANSON AYLESWORTH,

*Treasurer Trustees' Association.*

Toronto, 17th April, 1900.

The Secretary read the following report:

## SECRETARY'S REPORT.

The Minutes of the Proceedings of this Department at the convention which adjourned 5th April, 1899, were in the printer's hands before the end of that same April; and copies were sent to all the members early in May. In October the programme for "1900" was arranged; copies thereof with a circular were sent to the Wardens and Clerks of the County Councils of the Province in time for their January sessions. Early in March the pamphlet "Proceedings," programmes and circulars were distributed among the School Boards. In 1898 the demand for our "Proceedings" in pamphlet form exceeded the supply printed in the first edition; last year the supply was somewhat in excess of the demand. Doubtless the happy mean will be hit upon this year.

Counting the preliminary meeting of June, 1887, there have been held 14 conventions of this Association. 110 localities have sent delegates.

Of these 26 sent delegates to 1 convention.

14 sent to 2; 16 sent to 3; 4 sent to 4; 15 sent to 5.

3 (Norwood, Oakville and Stratford) sent to 6.

11 (Arnprior, Brantford, Caledonia, Dunnville, Elmira, Lindsay, Mitchell, Picton, Shelburne, Trenton and Weston) sent to 7.

4 (Arthur, Chatham, Paris and Uxbridge) sent to 8.

2 (Newmarket and Pembroke) sent to 9.

4 (Bowmanville, Kingston, St. Catharines and Woodstock) sent to 10.

4 (Collingwood, Grimsby, Guelph and Newburgh) sent to 11.

2 (Galt and Toronto) sent to 12.

4 (Hamilton, Oshawa, Ottawa and Owen Sound) sent to 13.

1 (Whitby) sent to the whole 14 meetings.

Total attendance, 761 delegates ; 307 from Boards of Education ; 261 from Public Schools ; 193 from High Schools.

The average yearly attendance has been 55, made up of 22 from Boards of Education ; 19 from Public Schools ; 14 from High Schools.

The following are some of the topics legislated upon :

Maintenance of High Schools ; High School Fees ; The Entrance Examination ; Power to Borrow Money ; The Commercial Course ; Public School Text-Books ; Decision of Disputes ; Union School Boards ; Election of Trustees ; Agriculture in Public Schools ; 4th Form Work in Public Schools ; 5th Form Work ; The Public School Leaving Examination ; Agreement with Teachers ; Truancy ; Increased Grants to Public Schools ; The Overcrowded High School Curriculum ; Supplemental Examinations ; County Boards of Examiners ; Rural Public Schools ; Discipline in Schools ; Parents and Trustees ; The Curriculum of Public Schools ; Publication of Particulars of Departmental Examinations ; Appeals of Unsuccessful Candidates ; Religious Instruction in Public Schools ; the Teaching of Latin ; Manual Training ; 3rd Class Certificates ; The Amount required to be Expended for Drawing Models in High Schools ; Literary Qualification of High School Trustees ; " No Teachers Under 21 Years of Age ; " Double Applications by Teachers for Situations ; Mensuration in Public Schools ; Payment of Trustees ; Reports of School Inspectors ; Public Lectures by School Inspectors ; Exemption of the Local Municipality from County Rates for High Schools ; Uniformity of Public School Promotion Examinations ; Free Conveyance of Pupils to Union Rural Public Schools ; Public School Holidays ; Model Schools ; Kindergartens ; Physical Education.

There have been 349 individuals' names registered. 186 attended one meeting ; 73 attended two meetings ; 32 attended three meetings ; 17 attended four meetings ; 11 attended five meetings ; 5 attended six meetings.

10 (S. W. Brown, L.D.S., Dunnville ; Col. Cubitt, late of Bowmanville ; Col. Deacon, Lindsay ; Geo. J. Fraser, Woodstock ; Wm. Houston, M.A., Toronto ; John Hogg, Collingwood ; S. F. Lazier, Q.C., etc., Hamilton ; Walter McGibbon, St. Catharines ; John Parry, Dunnville ; A. Werner, Elmira), attended seven meetings.

3 (Jno. Anderson, Arthur ; W. J. Burns, M.D., Caledonia ; and Judge A. Bell, Chatham) eight meetings.

3 (John Allan, Paris; Jas. H. Burritt, B.A., Pembroke; and Jno. I. McCracken, B.A., Ottawa) nine meetings.

1 (Rev. Dr. Somerville, Owen Sound) ten meetings.

1 (Rev. Dr. McRobbie, Shelburne) eleven meetings.

2 (John Ball Dow, B.A., Whitby; Geo. Anson Aylesworth, Newburgh) twelve meetings.

2 (J. E. Farewell, LL.B., Whitby, and the Hon. G. W. Ross, LL.D., etc., Premier of Ontario) attended thirteen meetings.

GEO. ANSON AYLESWORTH,

*Secretary Trustees' Association.*

Toronto, 16th April, 1900.

On motion of L. K. Murton, B.A., of Oshawa, and Peter Christie, of Manchester, the Report of the Secretary was received and adopted.

The President, S. W. Brown, L.D.S., Dunnville, delivered an address.

On motion of Mr. A. Werner, Elmira, and Mr. S. Alfred Jones, Toronto, the President's address was received, and ordered to be printed in the Minutes of Proceedings of this Department.

John E. Farewell, LL.B., of Whitby, introduced the report of the Special Committee on Manual Training—Messrs. Farewell, Werner and Chown—appointed at the last annual meeting. Mr. Werner read a paper on "Manual Training."

George Y. Chown, B.A., Kingston, read a paper on "Manual Training."

On the conclusion of the reading of the two papers it was moved by Messrs. Chown and Farewell, that the recommendations of the Committee be endorsed by this 'Trustees' Department.

On motion these recommendations were considered clause by clause. Each of the five clauses and the whole report were adopted.

On motion of Col. Deacon, Lindsay, and Judge Creasor, Owen Sound, the thanks of the 'Trustees' Association were tendered to the Committee, and its reports were ordered to be printed in the Proceedings.

Mr. Farewell, President of the Ontario Educational Association, told of the method pursued by the County Council of Ontario in setting apart an evening to be devoted entirely to a conversational discussion, clause by clause, of the Proceedings of this Trustees' Association—a sort of Educational "Smoker."

Mr. S. Alfred Jones, of Toronto Public School Board, gave notice of motion :

That in the opinion of this Association the amalgamation of the Public and High School Boards under the provision of the statute is desirable.

John Noble, M.D., of Toronto Public School Board, gave notice of motion :

That in the opinion of this Association our High Schools and Collegiate Institutes are not serving the best interests of the community, in that they grind out lawyers, doctors, teachers and preachers—non-producers : that the men this country requires are farmers, miners, lumbermen, stock-raisers and manufacturers—producers : therefore we believe that a class in connection with a Public School should be established in each township in which agriculture, mineralogy, forestry and kindred subjects would be taught, also the fundamental principles of a commercial education.

On motion of Mr. John Parry, Dunnville, the Convention adjourned for the day.

WEDNESDAY, APRIL 18TH, 1900—9 A.M.

The Convention reassembled, the President in the chair.

The Auditors, Mr. Chas. McKinlay and Mr. John Anderson, reported that they had examined the receipts and disbursements of the Treasurer for the year 1899-1900 in detail, and found the same correct, with the vouchers therefor. On motion, the Auditors' Report was received and adopted.

The following were elected officers for 1900-01 :

<i>President</i>	- - - -	George Y. Chown, B.A., Kingston.
<i>1st Vice-President</i>	- -	John A. Leitch, Brantford.
<i>2nd Vice-President</i>	-	John Anderson, Arthur.
<i>Secretary-Treasurer</i>	-	George Anson Aylesworth, New- burgh, Addington County.

After the above-named officers had been elected by ballot, a committee was appointed to nominate the Executive Committee. The Committee made the following nominations, which were confirmed by the Association :

Messrs. J. W. White, Chatham ; C. W. Kelly, Guelph ; J. R. L. Starr, Toronto ; J. B. Fairbairne, Bowmanville ; J. G. Elliott, Kingston ; W. J. Kidd, Ottawa ; Thos. Stewart, Lindsay ; R. H. Jupp, Simcoe County.

In addition to the above-named officers and elected members, the Executive Committee includes *ex officio*, ex-Presidents, Farewell, Bell, Somerville, McCracken, McRobbie, Lazier, Dow, Jackson, Burritt, Col. Deacon, Judge Creasor and Dr. Brown.

Mr. Chas. Meighen, Perth, introduced the following motion, seconded by Mr. F. Abbot, Meaford :

That in the opinion of this Association, truant officers would be more efficient in the discharge of their duties if subsections 1 and 3 of section 6 of the Truancy Act were amended in the following manner :

6.—(1) By striking out the words “Police Commissioner, or in cases where there are no Police Commissioners, the Municipal Council,” and inserting in their stead the words, “Board of School Trustees or Board of Education.”

6.—(3) By striking out the words, “Board of Police Commissioners, or any Municipal Council, or Board of Trustees,” and inserting in their stead the words, “Board of School Trustees or Board of Education.”

It was moved in amendment by Judge Creasor and Dr. Noble, that all the words in the original motion after the words “duties if” (in the second line) be struck out, and the following inserted, “the Truancy Act were so amended as to make it permissive for School Boards and Boards of Education to appoint Truant Officers, wherever the Police Commissioners, or Municipal Councils neglect, or refuse to do so according to the request of the said Boards.”

Mr. Meighen, having accepted the amendment, the original motion was carried unanimously.

The Convention next considered the paper read by Mr. John A. Leitch, Brantford, on “Uniformity in the Public School Promotion Examination Papers throughout the Province.” (See “Proceedings,” 1899, p. 23.—6.)

Moved by Rev. W. Cook, B.A., Thorold, seconded by Mr. R. H. Jupp, Simcoe County Council, That the aggregate of the pupils' marks made from weekly examination, as suggested by Mr. Leitch's paper, shall be the record for promotion from year to year, instead of depending on one final examination.

In amendment, moved by S. F. Lazier, LL.B., Hamilton, seconded by Mr. Werner, Berlin H. S., That we recommend that quarterly examinations upon all the subjects taught be held in our schools, and that the average marks of these examinations in connection with the teacher's report shall determine the standing of the pupils.



The Convention voted—the amendment, for quarterly examinations, was declared lost; the original motion, for weekly reviews, carried.

WEDNESDAY, APRIL 18TH, P.M.

The Trustees' Department reassembled, the President in the chair.

The problems stated by the Hon. the Minister of Education were discussed severally.

“First Problem—Under the High School Act, cities and towns, separate from counties for municipal purposes, receive maintenance money from the counties, while they contribute nothing to the county rate. This unfairness to the High Schools situate within the county for all purposes might be remedied in either of two ways—which would you prefer?”

John Ball Dow, B.A., Whitby, seconded by Mr. Thomas Stewart, Lindsay, moved that in the opinion of this Department the best and most workable solution of the matters referred to in the first problem referred to this Department by the Hon. the Minister of Education (see page 26 of the “Proceedings,” 1899) is to adopt a system of refunding from year to year to the High School Districts not separated from the county the respective amounts paid by such districts in the county rates towards the county grants to the several High School Districts receiving such grants, on lines similar to the provision for refunding in the case of Inspectors' salaries, found in sub-section nine of section eighty-two of “The Public Schools' Act,” and this Department respectfully recommends this solution to the Minister.

(Sub-section 9, section 82 of “The Public Schools' Act”—R. S. O., 1897, cap. 292. “When the Public School Board of any town not separated from the County, has before the passing of this Act appointed an Inspector, other than the County Inspector within whose District such town is situated, the County Treasurer, on demand, shall pay to the order of such board a sum of money equal to the amount collected within such town for the payment of the salary of the County Inspector.”)

In amendment, moved by J. Harrison Pew, seconded by E. Cruickshank, that this Trustees' Association composed of delegates from various School Boards and County Councils of the Province of Ontario, in answer to the first problem submitted to this Association at its last meeting by the Hon. G. W. Ross, would recom-



mend that the "High School Act" be so amended that the County rates contributed for the maintenance of High Schools be equally distributed over all municipalities in the County as well as cities and towns separated from the County declaring their schools open to County pupils, and receiving aid from the County.

After discussion the amendment was voted upon, and declared lost; the original motion carried.

"Second Problem—Of what utility is that power of appointment of High School Trustees now vested in County Councils? Has the County any interest that the Trustee can protect? Shall we drop the County Council Trustee?"

Moved by Dr. Noble, seconded by E. H. Millington (St. Thomas), that in the opinion of this Association the County Council should not appoint the High School Trustees.

The motion was lost by a large majority; and in view of the fact that County Councils are required to provide money for the support of High Schools, it was agreed, on motion of Mr. E. B. Smith, Ailsa Craig, and Mr. Fairbairne, Bowmanville, that the power of appointment of High School Trustees should remain as at present.

"Third Problem—The present law requires non-resident pupils to pay the fee set by the High School Trustees. In the case of a High School situated on the border of another county, this seems to work a hardship upon pupils living near. Shall pupils be considered County pupils of their nearest High School irrespective of county boundaries? Or shall pupils residing within three miles of a High School be regarded as County pupils of that school? On the other hand County Councils do not like to pay for pupils living outside their counties."

Moved by Mr. A. Logan, Niagara Falls, seconded by Rev. John Crawford, of the same place, that the term "County pupil" should continue to bear the interpretation which it bears in the present "High School Act." Carried.

"Fourth—It is now the rule that Inspectors must deliver a public lecture in every school within their inspectorates, once a year. Do you think that worth while? We want the people to learn more about their own schools.

"High School Inspectors are required to hold conferences with Trustee Boards."

Moved by Col. Deacon, seconded by John Anderson, that this Department approves of lectures being given publicly in our

Public, High, and Separate Schools, by the Inspectors, at least once a year, to which lectures the parents and guardians should be respectfully invited in order to bring the people more in touch and sympathy with the Teachers, Inspectors, and Trustees.

Rev. Father Ryan, rector St. Michael's Cathedral, Toronto, briefly addressed the meeting. He said he had not the slightest doubt about the great utility of Inspectors' lectures. In Separate Schools—and he lamented the word "Separate" as an unfortunate name,—the same text-books were in use, the same noble object was aimed at, the instruction and education of youth. He was greatly pleased to be present, and as a member of Toronto Collegiate Institute Board, he listened with approval to the practical discussions of the Trustees' Association.

Col. Deacon's resolution was carried unanimously.

The following letter was read to the Association:

WHITBY, 17th April, 1900.

To the President and members of the Trustees' Department, O. E. A.

Gentlemen,—I was appointed a delegate to your convention, but am regretfully unable to be present. Had I been present, I had hoped to get your Association to pass a resolution strongly condemnatory of the pernicious and growing evil of cigarette smoking by our boys.

That the habit of cigarette smoking is increasing, will, I am sure, not have escaped the notice of even the most careless observer. A few years ago, only an occasional boy or young man smoked cigarettes; now it is not an uncommon sight to see our young boys on the way to and from school and after school smoking away vigorously. The law seems powerless to keep boys from nine to sixteen getting all the cigarettes they can pay for. The boy smokers are adding to their numbers every day. The habit is spreading rapidly.

That the habit is a pernicious evil, I think no one will doubt. It hurts the boys physically and morally; morally, because too often it is done on the sly, without the parents' knowledge, and hence conducive to deceit and lying. Physically it is injurious in many ways, but especially to the nervous system. My mature judgment is that cigarette smoking, or in fact, tobacco in any form, is very hurtful to growing boys. The cigarette "fiend," as they term themselves, and there are plenty of them, has an insatiable appetite. He will smoke ten, fifteen, twenty or twenty-five

cigarettes in a day, and, worse still, he "inhales them," that is, he draws the smoke down into his lungs, before puffing it from his mouth. It is an old question whether or not the tobacco in cigarettes is not drugged. I often suspect it is. If so, the danger to our boys is all the greater.

The Board of Education in Whitby has already put themselves on record, having at a recent meeting adopted the following motion :

"That the Secretary of the Board be instructed to draw the attention of the County Crown Attorney to the fact that the pernicious habit of cigarette smoking has become prevalent amongst the youth of the town, and to request him to take such steps as will tend to enforce the law regulating the sale of cigarettes and tobacco."

The Town Council of Orillia has, according to the press, done better than that, for they have "petitioned Parliament to prohibit the manufacture, importation and sale of cigarettes and the material used in their manufacture." Other boards and municipalities have likely taken similar action.

I hope that your Association may take some action in the matter, by passing a resolution or taking such other course as may secure the co-operation and assistance of School Boards and Municipal Councils throughout the country to check the growing evil.

Gentlemen, I don't know that this question comes properly within the jurisdiction of this Association; but my excuse for writing you is that I think it is high time that some Association of authority should agitate the question.

I am, gentlemen,

Yours very sincerely,

CHAS. F. MCGILLIVRAY.

Moved by Mr. E. B. Smith, Ailsa Craig, and John Ball Dow, Whitby, and resolved, that the letter of Dr. McGillivray, of Whitby, as read by the Secretary, be incorporated in the published Minutes of this meeting; and that this Association heartily endorse the principles therein enunciated; and that in the opinion of this Association, every School Board and Board of Education, and the Government of the Province should take steps to secure the enforcement of the Act prohibiting the sale of cigarettes to minors.

Pursuant to notice given previous to adjournment of the First Session, Tuesday p.m., Dr. Noble, Toronto, introduced his motion as to the inefficiency of High Schools and Collegiate Institutes, to which he applied the words of the old weaver regarding the poor work of his apprentice,—“Ye’ve put it from being *yarn*; and it’s not *cloth*!”

No one having seconded his motion Dr. Noble gave further notice that he would introduce it at the next annual meeting of this Association.

The President reported that the Executive Committee nominated Col. James Deacon as Director for the year 1900, from this Department to the Board of Directors, Ontario Educational Association.

#### THURSDAY, APRIL 19TH—A.M.

The Trustees’ Department reassembled, the President in the chair.

The Inspectors’ Department invited the Trustees’ Department to hold a joint meeting during the convention of 1901.

On motion of Mr. Thos. Stewart, seconded by Mr. J. G. Elliott, the Inspectors’ invitation was accepted.

His Honor, Judge Ardagh (Simcoe County), moved, seconded by Mr. Leitch, That in the opinion of this Trustees’ Association the present High School Entrance examination should be done away with, and that it should be necessary for all pupils, hereafter, to pass the Public School Leaving examination before entering a High School. Lost.

I. J. Gould, M.P., Uxbridge, seconded by Mr. John Anderson, moved that it is inadvisable that members of County Boards of Examiners should examine the papers of their own pupils; and that the members of the said Boards should be selected from persons who are in no way connected with the teaching staff of the different High Schools or Collegiate Institutes of the County for which they are appointed. Carried.

Mr. E. B. Smith, Ailsa Craig, introduced his motion to abolish County Model Schools.

At the request of a number of the delegates, Mr. J. J. Tilley, Inspector of Model Schools, who was in the room, spoke to the question.

On motion of Mr. E. B. Smith, seconded by Dr. Noble, it was resolved that this Trustees’ Association recommend that the number

of County Model Schools be reduced, the term extended, and their financial support proportionally increased.

Rev. W. A. Cook, B.A., Thorold, gave Notice of Motion, that the time has more than fully come when the intellectual and moral welfare of our Province demands that the whole Bible be introduced as a text-book in the curricula of the Public Schools, High Schools, and Collegiate Institutes of this Province.

THURSDAY, APRIL 19TH, 1900.

At two o'clock the Convention re-assembled, the President in the chair.

Mr. L. H. Baldwin read a paper on "Voluntary Public Schools."

Moved by G. A. Aylesworth, Lennox and Addington, seconded by J. W. White, Chatham, and resolved, that Mr. Baldwin's paper be received, printed in the Proceedings, and discussed at the next Convention of this Association.

On motion the president called Vice-President Leitch to the chair.

Moved by Col. Deacon and George Y. Chown, B.A., and resolved, that the thanks of this Department be and are hereby tendered to S. W. Brown, L.D.S., for the gentlemanly, zealous, courteous and intelligent manner in which he has presided over our deliberations during the past year.

Dr. Brown appropriately responded. He said it had been a pleasure and a privilege to preside over what had proved to be one of the most successful conventions ever held by this Association. The registered attendance was the largest on record; and while he regretted the absence of several of the old members, he was very glad to see the many new ones.

The President resumed the chair.

Moved by John A. Leitch, and J. W. White, and resolved, that the thanks of the Trustees' Department of the Ontario Educational Association be and are hereby tendered to our Secretary, Mr. George Anson Aylesworth, for his services as such during the past year; and that he be paid an allowance of \$40 for the same.

The Secretary thanked the Association for its kindly appreciation of his services.

On motion the Convention adjourned, Rev. Wm. Walsh, Brampton, at the request of the President, pronouncing the benediction.

## FINANCIAL STATEMENT

OF

## THE ONTARIO EDUCATIONAL ASSOCIATION,

1899-1900.

## RECEIPTS :

Balance from last Statement .....	\$274 52
Members' Fees .....	317 50
Annual Grant, Ontario Government.....	600 00
Advertisements in Proceedings .....	151 00
Sale of Proceedings.....	166 16
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	\$1,509 18

## PAYMENTS : •

Convention Expenses and Music .....	\$43 50
Secretaries of Departments.....	60 00
Trustees' Department, to cover cost of Printing, Mailing, Postage, 1900	50 00
Reporting Addresses—Evening Meetings .....	33 55
Printing Circulars, Cards, Programmes, etc.....	77 45
Expense of Advertisements.....	58 00
Proceedings—Printing, Binding and Publishing 1800 Copies .....	615 85
Postage, Mailing, Express, etc.....	69 48
Board of Directors, Railway Fare .....	35 25
Salary of the General Secretary.....	100 00
Salary of the Treasurer .....	20 00
Balance .....	346 10
	<hr/>
	\$1,509 18

R. W. DOAN, *Secretary*.

Toronto, 16th April, 1900.

W. J. HENDRY, *Treasurer*.

We certify that we have examined the Treasurer's books and vouchers for the current year and have found them correct, with a balance on hand of \$346.10.

CHAS. A. BARNES, } *Auditors.*  
J. BENNETT, }



# ADDRESSES AND PAPERS

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## ONTARIO EDUCATIONAL ASSOCIATION.

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ADDRESSES DELIVERED AT THE OPENING OF THE  
CONVENTION.

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Mr. John Spence, Chairman of the Teachers' Association of Toronto, voiced the welcome of that Association as follows: Mr. President, Ladies and Gentlemen,—The duty of welcoming the members of the Ontario Educational Association on behalf of the Public School teachers of Toronto has devolved upon me, in virtue of the fact that I was foolish enough to desire to be elected President of the Toronto Public School Teachers' Association. If there is anything that will make the present situation feel at all comfortable to me, it is the fact that I see on the platform and in the audience old friends of mine, those with whom I have been associated for years. Particularly am I delighted and pleased to see in the chair a very old friend of mine, Col. Farewell. I have known him for years as one of the most enthusiastic friends of the teacher, one of the most devoted and intelligent of trustees, with whom teachers are so closely associated, and I am glad to know that the Association last year conferred upon him the honor of electing him to preside over their deliberations during this year. I am also pleased that my duties to-night are of an almost entirely formal nature. It has been impressed upon my mind from more quarters than one that brevity is the soul of wit, and that my speech must be short. I must, however, take advantage of the situation to utter one or two sentiments that have been running through my brain to-day. I was worried a little this afternoon as to what I should say. Knowing that I had no particular address to prepare, I was not very much bothered, but this afternoon I thought it necessary to collect my thoughts a little, and it seemed to me that perhaps a word or two to the trustees, and a word or two to the teachers present, might not be out of place on my part.

The trustees have, perhaps, a very much more important duty to perform than most of the teachers and most of the people have fully considered. We must remember that they are the representatives of the people, of the ratepayers who foot the bill, and that the duties that devolve upon them in connection therewith are very many and very onerous. They must see in the first place that the very best teachers that can be procured are secured for their schools. They must also see that those teachers are secured at a reasonable rate of payment. That is a point wherein teachers and trustees very often differ, the trustee trying to get the teacher for as little expenditure of money as possible, and the teacher trying to get as much money as possible. I suppose we can blame neither. But there is this much to be said, that in very many places the trustees do not look so much at the price at which the teacher rates his or her services as at the probable efficiency of the applicant, and I am glad to know that teachers in very many places have had their abilities recognized with increased salaries.

It is hard, indeed, to estimate the value of a teacher's services. When one considers the amount of preparation that is required at the hands of a teacher nowadays, and when one considers the amount of responsibility that that teacher takes upon himself or herself, it seems that it is almost an impossible thing to value properly the services of the really efficient teacher.

It has been expressed in this Association many times that it is a regrettable thing that so many schools are filled with young men and young women, those who are just standing on the threshold of life. Perhaps it is. Perhaps it is to be regretted that so many teachers find their way out of the profession after two or three years' service; but I suppose as long as we have the educational mills turning out teachers by the wholesale, and as long as we have regulations permitting teachers to procure certificates at an immature age, so long will the younger ones who are able to work for less pay, cast out—I won't say into outer darkness—but cast out upon the world to seek a livelihood in some new direction, those teachers who have gained, in the schoolroom, experience and knowledge that cannot be valued with money. I hope that the new Minister of Education will be able to see his way clear to adopt at least one reform that has been strongly recommended by the teachers, and I believe also by the trustees of this Association more than once, that is, to raise the age limit, and to insist upon a little longer professional training.

As long as the door stands readily open, as long as it is easy to enter the profession, so long will we find many boys and many girls making the teaching profession a stepping-stone to something else. We who have made this our life-calling, we who have determined to devote all the energies of our nature to the education of the youth, we who realize that this is something worthy of the noblest efforts that we can put forth, feel deeply on this point, and we believe that the chances are that many and many a teacher, who would have been bright and shining lights in the profession, has been forced into other pursuits simply because there has been undue competition.

A teacher's work is an exceptionally difficult one. No one knows that so well as the teacher. The trustees do know it to a certain extent, but they cannot understand it fully. There are the worries incidental to the routine of school work. There are worries that come from unreasonable parents who grumble, and who sometimes more than grumble, because their children do not make such progress as they think they ought, or because their children do not advance as rapidly as other children do. It is hard for any parent to realize that his child is not just as clever as every other parent's child, and then the teacher is blamed for showing undue favoritism, for showing partiality, and for paying more attention to Mr. Smith's child than he does to Mr. Jones' child. 'That is one of the little things, perhaps, but still it is none the less worrying.

The aspect of the teacher's work has changed greatly, I think, during the past few years. When I entered the profession, the best teacher was the one who could produce in his pupils the greatest amount of knowledge. To-day, I believe the best teacher is the one who is working most to develop character in his pupils. We find now that it is not so important to be well grounded in arithmetic, or grammar, or the other subjects, as it is to understand the duties which the child owes not only to itself, and its parents, and to its fellowmen, but to the country as a whole. We have, I am glad to say, been led to see clearly the necessity of rousing in our children's minds that latent feeling of patriotism which, I believe, every person in every country feels. American people have long been noted for the patriotic feeling that has filled the minds of the children in their schools. It is not many years ago since our own Canadian people were often ashamed to call themselves Canadians, but I am glad that the day has come that Canadians are proud to be known as Canadians. I am glad, indeed, to

know that the boys and girls in our schools are having that principle developed, strengthened day by day. The events of the last six months have perhaps done more to encourage teachers, to encourage parents, to encourage trustees than anything else. Away off in South Africa the tyrannous Boer, the non-progressive Boer, dared to invade Her Majesty's dominions. It was thought at first that it would be a little act to force these persons back, but time revealed to the Empire that it was necessary to send a large army to restore peace and to maintain the supremacy of the Queen's Government. And then you will remember how it was proposed that Canada should join in this war. How gladly, how gallantly, how nobly did the sons of Canada respond to the call! What rushing, what enthusiasm, what devotion was displayed! The men pulled wires and used every conceivable influence to secure positions on the first contingent, and on the second contingent, and even with the third that has lately gone—not alone the young men, but the old men—and I say that it was a happy augury for this country that our sons were found, when this call was made, to be ready to respond to the call of duty. We scanned eagerly the columns of the daily press that brought us the news of conflict in South Africa, and how proud we were when we read the details of that battle in which many of our sons shed their blood for their Queen and country. While we grieve for those who were called upon to mourn, yet we rejoice as a nation because our sons, our boys, the defenders of this country, have proved themselves to be men of mettle, have proved themselves to be as valiant as any warriors found in the ranks of the British army. Now, ladies and gentlemen, contenting myself with these few remarks, I have simply to welcome you to the city of Toronto on behalf of the teachers of Toronto, and I thought, perhaps, some of you would enjoy a song by a few of the pupils from my school, Mr. Godfrey's new song, "When Johnny Canuck Comes Home."

A class of boys and girls from Mr. Spence's school then sang the song mentioned, which was received with hearty applause at the end of each verse, an encore being called for at the close, which was responded to by the young people singing "Soldiers of the Queen," the solo part being taken by one of the elder girls, Miss Bertha Hall.

Mr. J. R. L. Starr, Chairman Public School Board, Toronto, was received with applause, and said: Mr. Chairman, Ladies and Gentlemen,—I am not so much at home here this evening as my friend Mr. Spence was. I do not see so many familiar faces as he did, and I do not think I can make as good an oration as he did. I would not like to think, however, that I would yield to anyone in my interest in the education of the children of the Province. I would not like to think, as a citizen of this country, that anybody would outstrip anyone else in the deep interest that we all ought to feel in the education of the children. The education of a child, the development of a child, the leading out of the child, or the directing of a child, has always seemed to me the most sacred duty that could fall upon the shoulders of any man or of any woman. One of the faults of our educational system has been that we have laid the emphasis on the wrong point of education. We have laid the emphasis upon the examination, and not upon the manhood of the Province. We have been trying to teach children, to some extent, to pass examinations. Personally, I have horrible recollections of a large collegiate institute that I went to as a boy, where the ambition of the institute seemed to be to grind out teachers by the hundred; and those of us who did not seem to appreciate the system, why the machine simply rolled over us. Those who were a little indifferent about the matter got very little attention, but the fellow who wanted to pass the examination was the man who received all the attention. I do not know how that feeling prevails throughout the Province to-day, but I would hope that no institute or no school or no teacher would put as his ultimate aim before any child, or before any young man, the passing of an examination. I would hope that every teacher would recognize when he taught grammar that he was teaching something more; or when he taught reading, that he was teaching something more; and when he taught writing, that he was teaching something more; that gesture and poise and self-control and judgment and decision, and all those things which go to make up the rounded character were being taught by every teacher in the land as he stood before his class, and that the ultimate aim of every teacher should be the highest and best manhood and womanhood, no matter what the results of the examination might be, and no matter what standing his institute or his school had in the Province or the country. I must, I think, congratulate the teachers on the progress that they have been making along certain lines. For instance, of



late years there has been growing up in our midst a literature from amongst the teachers, and for the teachers, that any province or country might be proud to have. It is not the literature that we used to have, and put at the back of the book a few notes and a few explanations as to how the book should be studied, all with the one aim of helping the pupil to get through the examination; but to-day we have books worthy of the best intellect of the country. From the Premier downward—or upward, if you like—we have numerous books and numerous articles written on the subject of education. Not the least of these is that last book, which, perhaps, is a compilation, edited by Mr. Tilley, on “Methods of Education,” and published by that enterprising publishing house, George N. Morang & Co., which has just been issued within the last year. There is one thing, however, that I might take the opportunity of dilating upon a little longer to-night than upon some other subjects. I know I do so at the risk of being called a crank by the teachers of the city of Toronto, but as there are so many strangers here to-night I will have to ask the indulgence of the teachers of Toronto, and talk to the other teachers. I think I might say that I am a crank on the superannuation of teachers. Not that I want to advocate their dismissal from the staff at all, but I believe it is the solution of many a problem in the teaching profession. Just look at the difficulty we have in Toronto in connection with six hundred teachers. We have them growing old; we think growing so old sometimes that their powers are impaired. We have them so old that there is no doubt whatever that we can replace them with sound and better teachers, or more modern teachers, if you like that better, and yet the Board of the city of Toronto—and I think it is to its credit, too—has not the backbone to say to those teachers, “Get out into the street; you have served us well and faithfully for twenty or thirty or forty years; now we can replace you, just step off the staff.” I think it is rather to the credit of the Board that they do not do that kind of thing. And yet when you consider the child, when you consider that the keeping on the staff of that teacher with powers impaired may dwarf or blight or check the life of a child, that puts the other side to the question; and if in the final analysis we are driven to take a stand, and make a choice between the teacher and the child, the child must be the first consideration, and the teacher the last. If a teacher stands before forty or fifty or sixty or seventy children, and fails to give



them the best that they ought to have, or fails to give them as great a good as some other teacher can give them, then in the interests of the child that teacher ought to step off the staff: and to-day she or he throughout all this province, with but very few exceptions, has no place to go to. You may say, "Well, why do not teachers save?" Need I argue it before teachers? Need I argue why you do not save, the most of you? Need I refer to the colossal salaries that most of you receive? If I were talking before another kind of audience, I might say that teachers could not save; but I simply to-night appeal to your own experience, and if I asked the teachers here to-night to stand up—those with a heavy bank account—that could provide for their old age, I do not know how many would have to stand up; I am not going to guess; but I do not think there would be many. In the nature of things you do not receive a salary large enough, considering the expense that you are under, to put very much aside. And then, in the nature of things, the ordinary man does not save, or the ordinary woman does not save. In business matters that thing may work out. In a large business house, if an employee fails in his power, he can very often be put in some subordinate position, and, anyway, it is only a loss of dollars and cents if the business man keeps the employee in his employment: but when a Public School or any other Board keeps a teacher on in their employment who has survived his usefulness, then it is a positive harm to the child, it is the loss of a child's life. When a business man keeps an employee on who has survived his usefulness, it is only a matter of dollars and cents, and hence, in some way or other, that teacher must be provided for. If we have not inhumanity enough to turn them off the staff at once, the only solution that appeals to my mind at all is to establish some kind of a superannuation fund by which they may have, not a luxurious old age, but an allowance sufficient to keep the wolf from the door. Then, some young teacher may say to me, "Well, now, why should I pay into a fund?"—for I may add that that seems the only solution of the matter, that there should be a percentage of the salaries, with a contribution from the State to make up a superannuation fund—"why should I pay into a fund at all to superannuate some old teacher? I expect to leave the staff; I want to go into another profession; I want to go into law or medicine or the ministry, and I am only using the teaching profession to go into that:" or if it be a lady, she always has a hope within her breast, no matter what

her age—although I am not much experienced in these matters—she has always the hope of getting married. Now, that young teacher owes something to the teaching profession. To a very large extent at the public expense he or she has been educated and qualified to take a better position in life than she otherwise could; and it surely is not a very great stretch of power or a very great stretch of injustice to ask that teacher who hopes to leave the staff to contribute something for those who are going to make the business a permanent one. Besides, I have not very much sympathy for these people who go into the profession in order to leave it. I do not know that we ought to consider their feelings a great deal in the matter. The profession would be a great deal better, and a great deal more of a profession if we could establish within its bounds permanency by which both men and women would make it a life work and a life study, and, if back of all that were to be a comfortable old age, free from the worry of providing for it, I think that we would give to the profession a permanency that it has never had before. Then there is another side to the question: Should the State contribute anything? Should the Public School Boards contribute anything? Would it be any money in their pocket if there was a superannuation fund? Well, if we look at it from the standpoint of the child, I believe it would be a good bargain to have a superannuation fund in connection with every school in this province. As a teacher gets old, and the powers are impaired, nobody disputes the teacher ought to go off the staff. We are too good-hearted now to put them off the staff, but we would be driven to it if some sort of fund were provided; and I believe it would be a good bargain for the State, being a good bargain for the child. In addition to that, anything that will give an increased respect or increased dignity to the profession is a good bargain for the State, for it all helps to build up a better man and a better woman. What possible respect can the teaching profession have if Boards of Trustees are going to wrangle over the dismissal from their staff of some teacher who may have survived her usefulness? What possible respect will children of a city or town or rural district have for the teaching profession when the teacher is being continually quarrelled about and held up before the public in the newspapers, and by any and every means that trustees know how to use. Now, if at the end of twenty-five years or more of good, faithful, honest service we could place a teacher in a fairly comfortable old

age, I believe that would do more to inspire the youth of this country with respect for the profession than anything else we could do. It will give the child a better chance in life and for life, and if it will add a permanency to the profession, and if to the permanency we add a comfortable old age, free from worry to the teacher as he or she teaches his class throughout the year, and if to all this an increased respect is added for the profession, and a dignity worthy of the profession, then I believe that superannuation will do more than any other thing that we can establish in this province by the profession, and for the profession.

The Hon. Mr. Harcourt, Minister of Education, said: Mr. Chairman, ladies and gentlemen,—I know that you have all enjoyed the evening very much, and I must take care that I shall not by an unduly long address mar the pleasure you have thus far experienced. Therefore, my address will be brief. I indulge the hope that at some date in the near future I may have the opportunity of speaking to you at greater length. I enjoyed very much the singing of the children. I enjoyed very much, I may add, the address of one of the principals of the city schools of this progressive city of Toronto; and I was pleased, as you all were, with the practical address of my friend Mr. Starr who has just taken his seat. Mr. Starr is a very prominent member of the legal profession in this city. May I suggest to him that high and honorable as that profession is, it is not too late for him to leave it and to join the ranks of a still higher and of a still more noble profession, the profession of the teachers. But, Mr. Chairman, he dreads examinations. We will absolve him, if Mr. Millar will consent. From what we know of him to-night he is quite competent to take charge of any of our large schools. We will give him a certificate provided my Deputy will wink for a moment and break the law to that extent. I may have something to say a few minutes later upon points raised by the preceding speaker. My first duty to-night, and a pleasant one it is, is to welcome most heartily to these rooms the delegates of this Association, not only the delegates but their friends and all who come to the proceedings during the week and thereby show their interest and their sympathy in the teacher's work. I welcome you in the name of the Government of this province. Whatever may be the faults of that Government—I am not going to speak of them now, you would not expect me to do so—whatever its faults may be, it surely can be said of it in all truth

that it has been all the time anxious and deeply solicitous to do all that in it lies to advance the cause of the teaching profession. I welcome you to-night not only in the name of the Government of this province, but also in the name of the Legislature of this province at this moment assembled—a united Legislature, I am glad to say, in everything that concerns the welfare of the teacher and the well-being and advancement of the cause of education. Our Legislature differs, as all Legislatures do, as all parliamentarians do, on matters of broad public policy, but on this one subject of education the Legislature of this province, to its credit be it said, has all the time, and consistently too, done all it could to advance the interests of the education of the youth. I welcome you also, ladies and gentlemen, and especially, on behalf of the Education Department, over which for the moment I have the honor to preside. I feel anxiously, most anxiously, its responsibilities. I feel them the less when I know that I have at my back to support me thousands of teachers as capable and anxious to do their work well as any equal number of teachers in this whole world. My knowledge of that fact, and my knowledge that there are in this province men such as those in front of me, men such as those on this platform, who can advise any Minister as to what is best for him to do in matters of educational policy—my knowledge of these facts, I repeat, relieves me somewhat from what otherwise would be nothing short of a terrible responsibility. This city welcomes within its borders each summer important gatherings of various kinds—synods and conferences of this and that important church, gatherings convened in great numbers in the interests of sweet charity or broad philanthropy, and other gatherings numerically very strong representing tens of thousands belonging to this or that social or fraternal order. Each of these immense gatherings is important. No one of them, sir, is more important than the gathering which is represented here to-night—a gathering representing the entire educational interests of the broad community. For all these reasons may I not most heartily welcome the teachers of the Province to this room to-night? But I welcome you further for two other reasons. I welcome you because of yourselves, because of the positions you hold in the community, because you are a representative parliament, representative men and women enjoying and wielding great influence for good in the community in which you live; in the second place I welcome you for the life-work to which you are devoting yourselves, and to which I have already alluded an avocation than which there is none



more important, none more responsible known to man on earth ; and when I speak in that way I have in my mind, of course, the teacher's work in the broadest sense of the word. The bishop on the bench, the editor in his chair appealing to tens of thousands each morning as his paper reaches the public, the learned professor lecturing his students in some ancient seat of learning, the humble parish priest doing his work in his humble way in some cross-roads village, the teachers—and we have hundreds of them—in our important colleges and seminaries, and those other teachers by the thousand scattered over this province from one extreme of it to the other—all these I include when I use the word teacher ; and I say of them that their work is as high and responsible as any given to man to do in this world. For these reasons, and I could add others, it is my duty and pleasure to extend a hearty welcome to the delegates to the Ontario Teachers' Association. This Association has amply justified its existence long ago. I am informed that it now has an honorable history extending over well-nigh forty years. Let me allude to two facts in connection with it. If I were asked by argument to justify the existence of your Association I would give these two reasons ; I would give them heartily, and I could give others. The first reason I could give would be this : I would ask the audience to glance down the list of names of the presidents of this Association for the last forty years, and in that list will be found the names of some of the most eminent men who ever resided in the Province. I do not care, sir, to individualize, but one name comes to my mind, the name of Goldwin Smith—to-day the most brilliant writer of English in this broad world. You have had other distinguished men occupying the President's chair, a position which you, sir, in this room grace to-night. The very fact, therefore, that this Association has had at its honored head for forty years men of pre-eminent service, of pre-eminent usefulness to the State, proves conclusively that the Association has a high work to do, and the inference is that it has been equal to that work. Having glanced over the list of presidents, then I ask you to read one or two of the volumes of the recorded proceedings of the Association. It was my privilege not long since to scan somewhat carefully one of these volumes, and what I say is true of all of them, I am told—that they are suggestive, that they have been useful, useful to the profession, useful to the Legislature, useful to the whole Province. Your Association, therefore, has amply justified its existence, and you do yourself justice only when to the full extent of your sym-

pathies you do all that in you lies from time to time to extend its usefulness. The singing of our children here to-night roused in us a spirit of patriotism, all too latent, as Mr. Spence told us, until recent years; but great events evoke the true sentiment of a people, and great events have evoked that spirit in Canada. And we have a little testimony of it in the music we have had to-night. We have many reasons for being proud of the Province of Ontario. I must confine myself only to one or two to-night. We are proud of the fact that Providence has with lavish hand endowed this province of ours. Rich agriculturally, rich in its timber resources, rich beyond all my powers to describe in the latent hidden wealth of which we even now know so little and of which more is being known year after year. But you may ask me, what has that to do with our meeting here to-night? It has much to do with it, as I hope to show you later on. My present statement as to Ontario is this: That its position, comparatively speaking if you like, absolutely judged if you like, in educational matters is very creditable. Now there are amongst you those who, remembering the rights of Britons, like to criticise. Let me say, Mr. Chairman, on the onset that I shall ever welcome fair and generous criticism; I invite it. I remember these words—and no truer words were ever uttered—that criticism is a salutary tonic. I say to you all, trustees and teachers and inspectors, administer that tonic as freely as you will, but let it be done, as I know it will be done, generously as a matter of a process of reasoning, and if done in that spirit the result of your criticism will be good and only good to all concerned. We have made great progress in this province, ladies and gentlemen, in the course of a generation. I had thought of wearying you a little and of giving you statistics. I will spare you and give you no statistics, but what I wished to say was this: If it were possible that the first President of the Ontario Teachers' Association were able to be in this room to-night, how he would interest us! How clearly he would show us that there is no room for the pessimists in Ontario in educational matters! How clearly he would make known to us, speaking of a period thirty-nine years past, that the educational facilities afforded by this province to-day are immeasurably greater than they were when he filled the chair of the President. How interesting it would be if he were here to explain to us what the problems then were, and we would contrast them with the problems as we find them to-night, and we will never be without problems. We are in this



world to solve problems! That is precisely what we are here for. The east wind would not have been permitted to blow if we were not here to struggle with and to buffet it and to overcome difficulties; and the only difference is that the problems of thirty-nine years ago are not the problems of to-day. There will always be problems, and I say to those who have addressed us to-night, as I say to our friends everywhere throughout the Province addressing educational meetings, to remember that that man is a mere dreamer who ever hopes to see the day when we will not have problems to solve. I will speak of some of these problems later on. I need not go back thirty-nine or forty years. If I were to go back, say, twenty years ago, or twenty-five years ago, my remark would be quite true—the improvements made, the strides accomplished, the progress won in a quarter of a century in this province are as extraordinary as they are gratifying. The work done by the University to-day, of which we are proud, is actually double what it was ten short years ago; it is treble what it was twenty years ago, taking as a test the number of students attending, or the other test, the scope of the curriculum. Judged then by the University we have made immense progress. Apply your tests to the High School if you will, and the same remark is true. Whether it be the number of them, whether it be the extent of their wide-reaching influence, the good accomplished by them to-day, the number they reach, the amount of instruction they give to those attending them, the result is double or treble what it was fifteen or twenty years ago. And then when I come to the Public Schools—and it is with their interests that every good citizen is primarily concerned—must I not make a similar statement? Who is there in this room who inspected Public Schools as I did a quarter of a century ago—who is there in this room who taught a Public School, and a very humble one, as I did twenty-six or twenty-seven years ago, or who taught a High School as I did somewhat more recently, who in his own experience cannot show abundantly and conclusively that great progress has been made educationally in this fair province? And I could in a score of ways, were I to give the figures and illustrations, make good my statements, and all this without any word of boasting. Boasting would be idle. Why do I refer to it? The fact that we have made progress is only a reason why we should aim to accomplish still greater things in the years to come. The fact that we have overcome difficulties in the past should nerve us on to solve this, that and the other problem

which will be suggested in the course of your deliberations during the next few days. I speak of progress, therefore, not to boast of it but simply to show that a people which has progressed in the past will not be content to stand still, but that it will nerve itself on to further and still further endeavor and overcome such obstacles as from time to time present themselves. I have said that we had problems previously and we have them now. Why the difference between them? He who runs may read. We face to-day conditions which did not exist twenty years ago. Will I name some of these conditions rapidly? Who is there who knows this city twenty years ago and looks at it now who does not find himself face to face with absolutely new conditions—new processes and ideas of ventilation, of sewerage, of light, of transportation? Everything in connection with the city and its government has changed during the last twenty years. The telephone worked a change, the cablegram worked a change, cheaper postal rates worked a change, free libraries by the score when we had them only singly a few years ago, art galleries and other educational forces of various kinds are at work now, and none of them scarcely were at work, or if so, only in their infancy twenty or twenty-five years ago. We have new conditions facing us, and our problems grow out of these new conditions. Now, what are some of the problems to-day, and to which we must, if we are true to our duty, address ourselves? Reference was made to-night to one or two things as to which I had in my mind to speak. Let me speak of four or five things as to which we are agreed, and as to which I think we can make progress and must make progress in the near future. My first subject, and I think it is a most important one, is this: That our educational aims must be more practical in the future than they have been in the past. By that, Mr. Chairman, I mean that, as some writer puts it, the educational chasm between the school-room and actual life must be bridged. Ninety-nine out of a hundred of our boys and girls must expect a mere bread and butter existence; they must expect incessantly to strive and to work. That task evidently is before them while they live. That being so, the educational aim should be to give to these ninety-nine in school such equipment as will lessen their life struggle when they leave school; so that we must first address ourselves to the question of making our education more practical than it now is. Is this problem confined to Ontario? Now, I am quietly saying something to the critics all the time. Is that problem of making educational aims

more practical addressed only to the people of Ontario? or have other countries been thinking about it? Why, sir, as you know, the two sub-heads, if I may so call them, in connection with practical education, namely, technical education as it is called, and manual instruction, have been engaging the attention of the older countries for a good many years past. They have long since recognized the problem to which I am briefly addressing myself: they have recognized its importance; and they are doing their best to solve it. There are those who have been croaking the last few years and have been even publishing the statement that England's commercial greatness was on the wane; and what reason did they give? The reason given was that the education imparted in Germany was more practical than that in England, and that even in the manufacturing line of business the Germans were outstripping the English. At any rate, the people of England, as they have always done, have proved equal to the occasion, and have been addressing themselves most vigorously to this question of practical, and I may call it technical, education. But is England's commercial greatness on the wane? Let me answer it just by one single statement. England, sir, is the creditor nation of the world. England, recently, as you know, asked for a war loan of thirty-five millions of pounds—a tremendously large sum; I am speaking of events which occurred only a few days ago. England invited subscriptions for that large loan. What answer was given to England's invitation? Not the acceptance of thirty-five millions of pounds, but her invitation was accepted to the extent of three hundred and thirty-five millions of pounds. That was the answer given by the nations of the world to the statement that England's commercial greatness was on the wane. Mr. Chairman, we are proud to know that England will emerge from the cloud that now hovers over it stronger physically, materially and morally than at any other period in her history. And may we not be proud to say that this little Canada which is our home, will contribute—nay, has contributed somewhat to that grand result? It is customary, Mr. Chairman, at the beginning or end of a century to take stock. Whether this is the beginning or end of the century is a question I refer to the Mathematical Section. When they solve that question I will state just what I mean; but it does not matter much which it is for the sake of my argument. We take stock at the beginning of cycles, and at the end of cycles. Now, if we are to take stock as to the last century, or the century which has just

begun, whichever it may be, what would be the result educationally? What about ourselves? What about the status of the teacher? Middle-aged men in this room will remember Lord Macaulay's ringing words about the status of some teachers in his time. I need not refer to what Lord Macaulay said, but no historian of to-day will describe the teachers of to-day in the words used by Lord Macaulay—and Lord Macaulay lived in the lifetime of many within this room; so that the status and the prestige of the teacher in the past century have been increased immeasurably, and that means the advancement and betterment of the welfare and youth of the land. I would not wish to go back that far. I would rather confine myself to the Queen's reign, beginning at 1837; and if you were asked to single out six or eight great events, and to decide what led to these great results, the answer would be, the work of the school-teacher, the work of the school-masters. Some of these events, for example, were these. The children in the mines of England, the children in the mills of England, when the Queen began to reign, what about their condition? Historians describe to us their worn and wan and haggard faces. No one of them knew what the school-house was, or ever crossed its doors. They were absolutely uneducated. What about the Queen's children to-day? Whether in the mine or in the mill, or in the slums, everywhere they are looked after, they are cared for, they are compelled to go to school; the work of the school-master reaches out, and no longer do we see the wan and haggard faces of the young throughout the Queen's dominions. Take another item; take the profession of nursing—a matter of education. There was no such profession when the Queen began to reign. And what is there which has done more to relieve humanity in the lifetime of those in front of me than the services rendered the sick in the hospital by the educated nurses? Think over that matter for a moment. It simply means a revolution accomplished by the work of the school-master, by the pen of the agitator, and by the work of education generally. And then if we were to take the educational work of science, of invention, of discovery, and think what has been accomplished by one invention—the sewing machine, for example—how it has lightened the hours of toil of thousands, nay of millions of women in the world, and that, too, attributable to a discovery of science, a matter of education, and a portion of the work of the school-master. But I wish to name before I close some



other items as to which I think good may be accomplished during the next few years. Before leaving the question of practical education, let me say that this very session we are placing in our estimates a sum of money for technical education—a particular sum to be given to the enterprising, progressive Collegiate Institute Board of the city of Kingston, and an invitation to other cities to share in a little money subvention provided they comply with the regulations of the Department. We have, therefore, made a commencement in this matter of technical education. I need not weary you by showing you that technical education requires a good foundation, by way of good work done in the Public School, good work done in the High School. On the top of such work the structure of technical education should rest. What next? My next point is this—perhaps not in the order of importance; I think we must have, if we are to elevate the profession, and if their work is to be efficiently done as you all wish, we must have more attention paid to the professional side of our teachers. We have three Normal Schools at work to-day in this province, at their head three as capable men as preside over the fortunes of any Normal Schools on this continent; three Normal Schools doing excellent work. We have to-day, so Mr. Millar tells us, well-nigh 4,000 teachers in this province who have enjoyed more or less the advantages of Normal School education. The point I wished to address myself to was that of the County Model Schools. I hope to change them; I wish to change them. I will indicate the direction. I think we have too many of them. The statistics show that here and there last term there were schools of eight or ten scholars. That is a waste of money; it is a waste of the teacher's time. Let us have fewer of them, and let us also have a much longer Model School term. Why can we not have a term as long as the term of the School of Practical Science—six or seven or eight months—or a term as long as the term at the University? Even that would be a beginning. I would rather it were two years instead of one, but when it is only a matter of ten or twelve weeks I fear the results will continue to be inadequate. The third point I will speak of is that suggested to me partly by the remarks of Mr. Starr. It is not in our power directly to raise the salaries of the teachers. I wish the legislative wand by being waved could do that; but we are not living in days when wands are waved and when miracles are accomplished in these ways. Stern economic facts and principles rule and guide this world with crushing force,

and we must bow to economic laws and economic principles. I want to remind Mr. Starr that this province has spent by way of a superannuated teachers' fund since it was a province \$1,100,000; \$60,000 or \$70,000 a year, a payment subject to very gradual diminution. Eventually we will have no superannuated teachers' fund. We are about to do something this session—and I must give Mr. Starr and some of his friends credit for it—by way of passing a bill which will give the School Boards the power to grant a retiring allowance to any deserving old teacher by way of gratuity equal to a year's salary, or commute it for so much a year. Mr. Starr has with energy and force pointed out to us that there are teachers everywhere who should be able to look forward to some such fund as this. This little piece of legislation will, I hope, prove useful to the teaching profession. I hope that not a few School Boards will avail themselves of it. It will be general in its application. Every School Board may generously take advantage of it if it deems it wise to do so. The act is permissive. Another matter of importance to which even more feeling reference was made by my friend, Mr. Starr, was the matter of examinations, and I think, looking around the room, that he had many sympathisers in the audience. I think he was one of scores of us who at one time or another of our existence had good reason to dread this juggernaut of examinations. Now you will ask, what are your ideas? Have you fixed ideas on that subject? I certainly have, and I will give you the benefit of them without indicating at all the time within which they may reach fruition. I think, of course, that there must be examinations for entrance to professions, what we call matriculation examinations, and leaving examinations before the professional standing is given. There are some examinations which we must have, which we cannot dispense with. The important point is this: my point of variance is this: I think that we should in the conduct of these examinations allow an element to have force which now has but little force, and that is, the report of the teacher on the day by day work of the pupil. Now, who is there more capable of knowing the exact standing of the scholar than the teacher who has guided the work of that scholar day after day during a long term? My suggestion, therefore, is that in deciding the results of an examination the teacher's report of the day by day work of the scholar shall be assigned much more prominence in the future. To that extent I hope to see the rigor, so to speak, of the examination system as we now have it, some-



what mitigated. One or two other points as to changes which may occur in the near future. Reference was made, very properly, too, to the age limit at which teachers would begin their life's work. I am fully of the opinion that this limit must be raised almost immediately at least one year. It would not be fair, of course, to have it come into force at once, but by allowing, say, a year of an interim before which it shall come into force, I think it would be safe in the interests of the scholars and of the teachers alike to make a change such as that which I suggest. We are all proud of the rapidity with which our young boys and girls can comply with examinations of increased rigor and difficulty. They seem to be able to adapt themselves to examinations no matter how severe we make them. That is only one feature. We must not have immature teachers. It is not good for the teachers, and it is not good for the scholars, and therefore I hope to see this age limit increased somewhat in the near future. Now, a closing word or two and then I am done, and I hope I have not wearied you. During this session one or two other little changes have been made. I may as well indicate them to you. When we have done our work municipal councils will be permitted, not compelled, to give grants of moneys to all colleges and universities, or to any one of them they like. Not only that, but also to literary, scientific and historical societies. If the people then will educate their representatives in the local councils up to the wisdom of giving a grant of money to this or that literary or historical society, or to this or that college or university, be it Victoria or Knox or Trinity or Queen's, no matter which it may be, we make it permissible for the municipality to do it, and we also make it permissible that they may issue debentures and extend their payments over a term of years, thus making the money payment bear very lightly on the ratepayer unless the sum be very large during any one year. Just a word now about our profession again, and I am closed. Mr. Starr referred feelingly to the fact that your salaries are not so tremendous as to worry you over how to make investments of your money. He spoke feelingly on that point, and we all feel just as Mr. Starr expressed himself. That matter I hope will right itself in the near future. I obtained statistics recently, and I learned this fact—not much satisfaction in learning it—that in the United States with its fifty or sixty millions of fairly intelligent people, as people go in this world, the average salary of the minister of that important church, the Methodist Church, was

lower than the average salary of a male teacher in the Province of Ontario. Now, that is not a very gratifying announcement; it is not very creditable to our neighbors, but it shows that a great work in an educational way is to be done in order that teachers may be properly compensated for the high work they do. But the teacher's work, need I add, has compensations. He or she may labor under that distinctly marked grievance, that unfairness, that inequality of wage. That may be true, but there are compensations. You all remember the old couplet taken from one of the old poets:

“ Delightful task, to rear the tender thought  
And teach the young idea how to shoot ”—

a hackneyed expression, and yet as Mr. Starr has said, those who are in their profession for the love of it and to make a success of it appreciate feelingly those old lines so often quoted. And then again, sir, I am reminded of another sentence of James Russell Lowell, who in one of his delightful essays uses these words: “The riches of scholarship and the benignities of learning defy fortune and outlive calamity.” Those teachers who honestly address themselves to their important work, and who succeed in instilling into the minds of those placed under them the love of books, the love of learning, will experience that truth, and they will be placing within the reach of their students, “The riches of learning, the benignities of scholarship,” and their students through all their days, whatever their lot may be, will be able “to defy fortune and outlive calamity.”

President Farewell, then said: On behalf of the Educational Association I have to make some observations in reply to the several addresses of welcome presented to us this evening.

First, as to the address of Mr. John Spence, President of the Toronto Teachers' Association, I have to congratulate Mr. Spence as a County of Ontario “old boy,” upon his election as President of so important a body. This good city of Toronto, which has been built almost within the lifetime of many who are now present, employs seven hundred Public School teachers, besides those employed in teaching in the Separate Schools. The work of all these teachers in training the minds and improving the manners and morals of its young people can scarcely be over-estimated. I agree with him that the question of teachers' salaries

is a most difficult one. This difficulty between the trustee and the teacher is only equalled by that which occurs between the solicitor and the client when the bill of costs is to be settled. It is not a pleasing operation at all. It is regretted by Mr. Spence, as President of the Association, and by all the speakers, that there are so many young teachers. Their engagement is a dangerous experiment. It is at least an experiment—an experiment that should not be too often repeated. Of course, we know that there must be some period in the existence of the person who proposes following teaching as a profession, when he must commence to teach. He was born young, and may be very young when he commences teaching. Of course, in teaching you cannot follow the rule, “Do not go near the water until you learn to swim.” However, there should be some system, as outlined by the Minister, by which the age at any rate should be a sufficient guarantee of some solidity of character; and when you get a teacher, please do not change him. I hope the trustees will not change him because another can be hired for a few dollars less than is paid to the present teacher. I was very much pleased with my friend, Mr. Spence’s observations as to our young Canadians, and the prominent part they are taking in the struggles of the Mother Country in South Africa. Well, what did Mr. Spence, what did anybody, expect of Canadians who went to South Africa but that they would do their duty? What under the sun have we been training them in our schools for, supplying them with intelligence better than arms and ammunition, during all these years? Our teachers have complied with the provisions of the Statutes which require that patriotism and love of country must be taught in our schools. We sent them the kind of marksmen who can shoot, not the kind of marksmen who cannot read or write their own names. What do we expect of Canadians who go to the United States to work, but success. Why, that country must owe us at least \$15,000,000 for training and educating the men who run their country for them. When our young men go over there equipped as they are, by this our school training, they are not hewers of wood and drawers of water for the Yankees; they are bossing the jobs all over that great country. Wherever a position of trust and confidence is to be filled by a man possessing also energy and brains, it is a Canadian that is wanted. They might just as well advertise or hang out their notices to that effect, no other need apply as long as a Canadian is in sight. Connecticut used to be styled the “Land of steady

habits," and her sons filled the positions that western Canadians are filling to-day. I have estimated carefully that they owe us at least \$15,000,000 for educating skilled artisans, capable and honest men for their positions of trust; they won't hand over the unclaimed millions which they got for those *Alabama* claims, and which they owe us for damages occasioned by Fenian raids from their country, but they should pay this one. The Minister of Education should make his claim with the greatest confidence.

Hon. Mr. Harcourt—Would you settle at \$13,000,000?

Col. Farewell—Yes, but I fear they would be like the Superintendent of the Stage Line in California, who was short in his accounts. When it was attempted to effect a settlement, and the company offered to throw off \$25,000, he said, "I won't be outdone in generosity, I will throw off the other \$25,000 and square the account."

The Canadian poet, Sangster, whose works do not receive the attention they deserve in these days, says Canadians are

" Sons of a race whose sires  
Aroused the martial flame,  
That filled with smiles  
The triune Isles,  
Through all their heights of fame.  
With hearts as brave as theirs,  
With hopes as strong and high,  
We'll ne'er disgrace  
The honored race  
Whose deeds can never die.  
Let but the rash invader dare  
To touch our darling strand,  
The martial fires  
That thrilled our sires  
Would flame throughout the land."

Thank goodness, under the British flag this "darling strand" is not alone our particular "pent-up Utica" here in Ontario. When they touch any part of the scarlet girdle with which the Army and Navy have encircled the world, or any portion of British territory, they touch our "darling strand." It was a very fortunate thing, it was very appropriate, that the disgrace which was said to have attended British arms at Majuba Hill, some years ago, should be wiped out by the Canadians. When I read of the Canadians creeping up under cover of night trying to entrench themselves under the edge of the enemy's rifle-pits, and of their discipline

when a heavy fire was poured in upon them; not a shot was fired, not a shout or sound was made in reply, and all remained so silent that the Boers fancied that no enemy was near them, and all night the work of entrenchment goes on; when daylight came, and when the Canadians were just climbing into the trenches of the Boers, it appears to me that the enemy did just as Davy Crockett's coon did. Davy was a wonderful marksman his reputation extending so wide through the States that it is said, when a coon saw Davy point his rifle up toward the tree-top, he said, "Davy, don't shoot, I'll come down." So when the Canadian boys got into the trenches, the Boers said, "Don't shoot," and up went the white flag. I am glad we had the honor of getting that surrender on the anniversary of Majuba Day. I think the General commanding showed great discretion in leaving that job to the Canadian boys, who could do it.

The Educational Association, whose members come from all over Ontario, are delighted with the welcome we have received from the Toronto Teachers' Association.

Then we have Mrs. Stevens presenting the welcome of the Women's Christian Temperance Union. Now, I need not take much time as to that. I think I may safely say that it is not only the duty, but it is the pleasure of the teachers of this province to impress upon their pupils the one great fact that none of them can ever be injured in health, morals or fortune by the practice of temperance, and that there is no vice which swallows up so much health, hope and happiness as intemperance. Cigarette smoking—that is another question. I find that the Whitby School Board, during my absence, were good enough to pass a resolution that I should devote my energies just now to the suppression of the cigarette nuisance by prosecuting those who sold cigarettes to minors; I may have to see how well I can discharge that duty during the summer. Then we have my friend, Mr. Starr, Chairman of the Public School Board of the city, another County of Ontario "old boy," and I may say to Mr. Starr that we are particularly pleased to be welcomed by the Public School Board. For many years the Trustees' Section of this Association enjoyed their hospitality; we were sheltered and offered a home while in the city, holding our meetings in the rooms of the Public School Board of the city of Toronto, and those who originated that Association, and the old veterans who have been attending it for many years will remember the kindnesses and courtesies they received at the hands of the Public School Board. With many



of Mr. Starr's suggestions I was certainly greatly pleased. The Hon. the Minister suggested that it was not too late for him to repent and join the profession, and that there might possibly be a way of evading the examination provision. Well, I may say that if the Hon. the Minister of Education will go down to the Whitby Collegiate Institute and look upon the walls, he will see Mr. Starr's name there as one who has passed his examinations and obtained a certificate authorizing him to teach, so that it is a work of supererogation on the part of the Minister and Deputy Minister to give him a certificate. It is a way we have of doing things down there—putting fellows through properly. Now, as to examinations, a great many do not believe in them. Theoretically there is no question about their use, but practically there is too much of this examination business. From the time a child can toddle to school he is set to work at hurdle-racing. He has only hopped over this examination, and that one and the other, when they raise the bar a little higher and a little higher every time as they do in drilling the Cossack cavalry, until the child's life is made miserable. The blessed infant ought to have a chance to grow—Nature intended that he should. If he can pick up a little information while he is growing, all right, but that he must be examined from time to time, and the work of growing go on at the same time, is outrageous. However, there is no substitute for it. We have got to have some test. The ratepayers are responsible for this child misery. It is not the Department so much; the people, the dear people want to know what their youngsters are doing, and unless some examinations are passed they are doing nothing; that is their idea of it. I hope the time will come when some better test will be got than examinations; that they will not be the be-all and the end-all of the teacher's ability to teach. That matter has been discussed, but we must still have these examinations unless the fathers and mothers will become more kind and sane, and not be so anxious to see the names of their children in the newspapers about being promoted and having passed examinations. The question of superannuation is most important. I propose to refer to a number of these matters to-morrow evening, therefore I shall not take up your time to-night. I remember one time a Board of School Trustees who did not wish to discharge a teacher who was somewhat advanced in years, but they hit upon this plan: they reduced the salary of the teacher one-half. For twenty years the lady still continued—oh, I did not intend to say it was a lady—but she continued in the



service of the Board. Year after year did she oppose her patience to the Board's fury, but year after year the application was made, and the salary gradually rose again to what it had been before the twenty years of extra service had expired. Fortunately she was entitled to superannuation, or I suppose she would still be teaching. I hope that we will be able to have something done in that way, because it is a terrible strain upon the conscience of the school trustee, especially when he goes through that process of degeneration when the backbone becomes ossified—no, that is not the thing, it is the other thing; as if you poured sulphuric acid over the back bones and they became cartilaginous—when the backbone becomes cartilaginous it is a frightful thing. The trustee does not wish to be cruel and hard-hearted, and so he patiently endures the pangs of conscience by very often, I am sorry to say, keeping teachers there doing an immense amount of mischief to children who are entitled to more consideration at the hands of the trustees than they get. The Hon. the Minister of Education has made a number of suggestions to us. I am sure that a great many of these you will agree with. They may not come as quickly and as rapidly as some might desire, but taking the whole proposed outfit, it looks as if it were in the right direction. I am sure you are glad to receive his words of welcome as coming from one who knows something about the tribulations and trials of a teacher. As a Public School teacher, as a High School teacher, and as an Inspector, he must have had the necessary qualification for the high position which he holds—a position second to none other in possibilities for affecting the destiny of this great province. I will not detain you later this evening, but will have something to say to you on these points, I trust, to-morrow evening. To the Minister of Education, to the Chairman of the City Teachers' Association and the Women's Christian Temperance Union, and the School Board who have accorded such a hearty welcome, I beg to assure you that we heartily appreciate your kind attentions.

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*PRESIDENT'S ADDRESS, J. E. FAREWELL, LL.B., WHITBY.*

Ladies and Gentlemen,—Allow me to take this opportunity of thanking you for the great honor you have conferred on me by unanimously electing me as President of this Provincial Educational Association, the educational parliament of Ontario.

The long roll of eminent educationists who have preceded me in this office, includes men who were the founders of our educational system, who spent the best years of their lives in making it one of which the people of this province and the Dominion are justly proud. It also includes those who have achieved eminence in the famed universities of Great Britain, and who, bringing with them ripe scholarship and experience, have devoted their energies to the educational interests of this "Greater Britain." It includes also able men, who have achieved great success as teachers in the Public and High Schools and Colleges of this province. Following such men, I assume the duties of the office with great diffidence.

I was for so short a time a teacher that I fear it is presumption on my part to hope to aid teachers in matters connected with their profession.

It is said, however, that those who are watching a game often see as much of it as those who are engaged in it. If this is so I may, as a school trustee for over a quarter of a century, speak as a watcher of, if not an actor in, the Public and High School work of the Province.

I congratulate you upon the success which has attended these conventions and upon the large attendance at this meeting. One of my predecessors, Professor Baker, in his admirable address, referred to the various classes of professional men who meet in conventions and are benefited by the interchange of views. He stated that the only exceptions were the lawyers, from which he contended that other professional men should infer that the law was not a science, or at any rate not a progressive science, however aggressive the practice of the art might be. In view of the well-known fact that those engaged in the practice of the law are so self-sacrificing as to faithfully observe the injunction "to regard not their own but another's wealth," I should have thought the proper inferences to be drawn from their not meeting for interchange of views are, first, that the law was not only a science but an exact science, and second, that its professors understood law so

well, and its chief object "the regarding of others' wealth," that there was no necessity for meeting in Convention for further information as to it or its noble work.

Perhaps some reference to the duties of teachers prescribed by the school law, as they appear to an outsider, may possibly be of some interest, if not benefit, to those actively engaged in the work. In this attempt I am comforted by Isaac Disraeli's statement that "the talent of judgment and criticism may exist separately from the power of execution." These duties may be examined under four heads:

1st. "To teach diligently and faithfully all the subjects in the Public School course of study."

What is teaching? We have heard of it as the

"Delightful task to rear the tender thought,  
To teach the young idea how to shoot,  
To pour the fresh instruction o'er the youthful mind,  
To breathe the enlightening spirit, and to fix  
The generous purpose in the glowing breast."

Is there not too much so-called teaching? Do the teachers not try to do more of it than is necessary, more in fact than the law or common-sense calls for? Have you not met with teachers—High School teachers principally—who carefully and conscientiously prepare the lessons and occupy the greater part of the time for the lesson in lecturing their class? The pupils enjoy these prelections immensely because they escape the searching, grinding questions, which should be asked, and which, if asked, they could not answer. When a difficulty looms up they at once ask assistance, and straightway the "lecturer," good man, resolves the matter and casts up a royal highway to knowledge for them. When examinations are over, the "lecturer" finds that he has returned upon his hands a large percentage of his candidates. The pupil have never been required to use their brains, to think, to reflect, to reason. They have only had to absorb as doth a sponge, "fresh instruction poured o'er the youthful mind." The lecturer and his pupils have been living in a fool's paradise. At subsequent examinations these "remanets" become repentends, the lower forms of the school are filled with them, and in due time the eloquent and obliging lecturer "moves on," if the pupils do not. Then cometh the hard-hearted, level-headed teacher, who insists that all a pupil can do for himself must be done by him. When

the pupil asks for assistance he gets it after the Socratic method, by a series of questions as to previously learned principles and rules by which the difficulty ought to be solved. The pupil finds out just how much he has overlooked or forgotten of his previous work, and is sent back to work out the matter. Then by subsequent questioning the teacher finds out whether the pupil has succeeded or not, and when absolutely necessary he gives assistance and so "teaches the young idea how to shoot." With this kind of teaching the pupil is self-reliant, resourceful and fitted for passing through examinations and the rough-and-tumble difficulties of every-day life. What he learns holds like a ragged spike driven into sound hardwood. In the lecturing system we have illustrated the interesting process of driving the spike into a rotten log. Let us have more directing and guiding, and less assisting pupils over every mole-hill, more educating, more drawing out of the faculties, more induction and less spoon-feeding. Froebel long ago demonstrated that what the pupil is able to evolve, to put out for himself as the result of thought, is more useful than what he absorbs.

A second duty prescribed is "To maintain proper order and discipline in the school."

We have had very different opinions as to what is proper order and discipline. Some teachers imagine that this is only attained when pupils move at the sound of a bell like convicts in the prison "lock-step," and when a school is kept as silent as a grave-yard at midnight. My predecessor, Mr. Kirkland, in his early days, called this "the silent convict system." His idea was that one of the great objects to be attained was the power of concentrating one's mental faculties upon the business on hand, and that the boy who could do this during the hum of the school-room and the recitations, had acquired a most valuable part of his education.

Have you ever noticed the perplexity and anguish which steal over the face of the young clerk in the grocery store when he tries to calculate how much an old woman is to get for her fractional dozens of eggs and pounds of butter when the price has a fraction in it, while the vender of the eggs and butter is plying him or some of her neighbors with questions? When you see this you may make sure that the youth has been trained on the silent convict plan.

Some teachers have rules by which, at times, strict silence and attention is required as a matter of discipline, just to show that it

can be had when wanted; and at times for study, the pupils are allowed to "go as they please." Get the boys so trained that afterwards in times of emergency they can think and decide what is to be done, no matter how many suggestions are being offered and how great the interruptions.

General Hutton, the late popular commanding officer of the Canadian Militia, had the faculty of commanding the attention of the men and maintaining discipline in an extraordinary degree. His idea was that the men should be kept at strict silence and attention only for as short a time as possible. As he would say, "When I say attention, I mean attention, and strict silence and steadiness, you know. I want the use of every faculty you have to this business." And he got it from every officer, non-commissioned officer and private.

How is this discipline to be maintained?

In "The Hoosier School-Master" we have the theory of one class of teachers, "No licking, no learning."

Goldsmith describes a teacher in these well-known lines:

"A man severe he was, and stern to view;  
I knew him well, and every truant knew.  
Well had the boding tremblers learned to trace  
The day's disasters in his morning face.  
Full well the busy whisper circling round,  
Conveyed the dismal tidings when he frowned."

I remember just such a teacher, during forty years. He taught thousands of the boys and girls of Ontario, Durham and Victoria counties. I have not only seen him but have many times felt the might that sometimes slumbered in that teacher's arm. His first name was Jeremiah, and almost daily he caused me to utter louder "lamentations" than those of his prophetic namesake. He *would* have order when he wished it, and insisted that all a boy was able to do for himself he must do, and he saw that he exercised his brains and did it. He was full of "Wise saws and modern instances." He knew how and when to point the moral, and from our delinquencies he read us never-to-be-forgotten lessons of life's duties and the pitfalls to be avoided, and of the steep and rugged road to success. Without appearing to lecture or to preach to us he made us all believe that he was at once "A guide, philosopher and friend," and that if he "spared the rod he spoiled the child." I believe that all his pupils living to-day, if here, would speak kindly of this Irishman.



I remember another teacher who fifty years ago had charge of all the pupils in the then small village of Oshawa. Cruelty was his characteristic. The warp and woof of his life. In one day with eighty pupils present he used his "Tawse" at least eighty times. He had some versatility of genius. For example, he would at times use a round lignum-vitæ rule by which he broke, crushed, or dislocated, the bones in some of his pupils' hands; occasionally he tried lifting a boy by his ear or tried to lift the ear from the boy's head. Boys with deformed and almost useless hands and others with ears partly torn from their heads are, I believe, to-day living witnesses of his cruelty. Perhaps improved by the corrections of Jeremiah aforesaid, or from having acquired much cunning and a little industry I was never struck by this fiend. As to his cruelty I had only to regret that I was not large enough to knock him down when he was practising it. I do not know why the trustees continued him. Perhaps the custom of those days not to receive at home complaints as to punishments by teachers saved him from dismissal. I know we shed no tears when the father of one of the pupils knocked him down and gave him a pair of black eyes. I do not remember that he ever in school said anything to improve the heart or conscience of a pupil. He did much to harden and damage both. Yet he was a thorough teacher of the "three R's." I am sure his death was not lamented by any human being or living animal. Tennyson well described him and his tribe when he said:

"He that only rules by terror

Does a grievous wrong.

Black as Hell I count his error."

Why he was so cruel I know not, unless he had the same opinion of the benefit of punishment for boys as the Russians are said to have as to its benefits to wives. A writer says: "In Russia a man may not only beat his wife, but it is laid down in the catechism and taught to all as necessary at least once a week, whether she had done anything wrong or not, for the sake of her sound health and general improvement."

One more reminiscence of my school-masters. One principal of a grammar school was addicted to drink, and prostrate under a table he would roar at us when a false quantity was given or a bad attempt at translating was made. He was a kindly man, gave us good advice, was a fair teacher, and had an unquenchable thirst. He died of drink in an Oshawa tavern, leaving no known relatives



or traces of his history except a tin box filled with parchment certificates of honor and diplomas attesting his hard work and success in the Scotch universities.

We have much reason to be thankful that school-masters like the two last are abroad "beyond that bourne whence no traveller returneth"; and that their successors have found a more excellent way of maintaining discipline, by commanding the affection and the respect of their pupils, and have also elevated the social position of the teacher by disassociating it from the office of the common hangman.

Third, another duty is "to encourage the pupil in the pursuit of learning." How is this to be done? The difference in usefulness between a teacher who can, and one who cannot do this, is most marked. What idea has the average youngster of the purpose for which he is sent to school but to be "cribbed, cabined and confined," retained and restrained from liberty.

I remember a newly-imported English boy was wasting his time, and to the teacher's question why he came to school, he answered, "'Cause vather telled I to." The teacher who can in some way make a pupil understand that in school he is not working for his father or mother, the teacher or the trustees, but for himself, has gone a long way towards getting the best results.

The common-sense, tact and kindness of the teacher are of the utmost importance in the discharge of this part of his duty. The success of men who, with but poor advantages, have made "their lives sublime," and of those who have been less successful, yet have attained a fair measure of usefulness and success, can be pointed out with advantage. There are few pupils who cannot be induced to attempt to do as well as some of their fellow-pupils, and to do better than others of them. Once the pupil has been taught the usefulness of some education to enable him to get on in the world, the acquisition of knowledge for the elevation of his character and tastes, and for its own sake, can be made to follow.

We find, then, that these three duties require that the teacher shall use his best endeavors to aid the pupil in getting at least such a knowledge of the rudiments of learning that he can get on in the world. In old times it was said that a knowledge of the "three R's" was enough for children who had to earn their own living after leaving school.

Florence Nightingale, I think, has said, "If that is all you teach them, they will acquire a fourth 'R,' namely, rascality." To pre-

vent this the teacher is also required, fourthly, "to inculcate by precept and example respect for the principles of religion and Christian morality, and the highest regard for truth, justice, love of country, humanity, benevolence, sobriety, industry, frugality, purity, temperance, and all other virtues."

"Well, this is a pretty large order," as an English waiter would say; but it is an order, which for the safety and well-being of the country must be filled by its Public and High School teachers. Whether the children of this province are to be trained and instructed in these principles, and educated by them; whether the boys shall grow to be such men, and the girls such women, as they can be made depends by no means alone upon the clergymen and Sunday School teachers of the country. The teachers are to have a very large influence in securing so desirable a result. To the teacher who does this work faithfully, one may truly say, as Shakespeare makes the Rev. Nathaniel say to Holofernes in "Love's Labor Lost," "Sir, I praise the Lord for you; and so may my parishioners; for their sons are well tutored by you, and their daughters profit very greatly under you: you are a *good member* of the commonwealth."

Whether the agitation for separate schools, church schools or voluntary schools shall continue to the danger of the school system, depends largely upon how well, or how badly, the teachers fill this large order as to teaching the duties of good citizenship required by the school law.

What is a boy good for? The answer given by a boy was, "To make a man out of." Teachers, that is your task—to make out of a boy a whole man, physically, intellectually and morally. What is the cause of the agitation for separate schools, church schools, and that latest, most dangerous, insinuating, insidious, and, please God, useless attempt to destroy our Public School system under the plausible name of "voluntary schools." The term sounds all right, but the object of the voluntary school is to teach theological tenets and doctrines of a particular church, to the maintenance and support of which the general public are *involuntarily* to be compelled to contribute.

I fear that all the efforts for establishing such schools have not originated, and have not been continued solely for the advancement of particular churches and the teaching of their doctrines, but that many laymen advocating them, honestly feel that the duties of the teacher lastly above described are almost as important

to the future of the pupil, and the country, as the teaching of secular subjects.

I have no doubt that many advocating these schools feel that what was hoped for in this respect, by establishing public schools and making it the duty of the teacher to earnestly strive to awaken the conscience, and to improve the heart, as well as the head, has not received sufficient attention in the past from the teachers.

Material prosperity alone does not make the people of a State what they are capable of becoming. Our province has made ample provision for training men and women for the learned professions; and when it shall have provided for giving proper technical instruction to aid those who are to earn their living in the wealth-producing occupations which employ nine out of ten of our people, which it has not done, but will do, the Government of the Province will then have performed its full duty to the people.

Mr. J. J. Kelso, in his admirable report on child-saving in Ontario, repeats the old saying that the value of a boy to the State at a commercial estimate is \$1,000.

This may possibly be so. You may remember that Lord Dunsyre criticised the author of the maxim, "A bird in the hand is worth two in the bush," as being a fool to judge of poultry in that "promiscuous manner." He said it made all the difference in the world what kind of a bird you had in hand and what the pair in the bush were. In judging of the value of a boy or girl to the Province you must know what kind of man or woman is to be made out of him or her. If the boy is to be a Humphrey Guest, who has spent over fifty years out of eighty years of his life in Canadian prisons, or a Harry Henry, whose imprisonments in Toronto jail reached nearly four hundred; if the girl is to be a Jane Cakebread, whose imprisonments when last heard from amounted to two hundred and eighty-nine; or Mother Mangons, "The mother of criminals, the New York woman, who, with her criminal descendants, have cost the State of New York nearly a million dollars;" the valuation at \$1,000 will be altogether too "promiscuous."

The Romans had some sound ideas upon education. They taught the youth some of the duties of life and good citizenship. To live honestly; to hurt no man and to give every man his due. *Honeste vivere, alteram non luedae; suum cuique tribuere.* Such principles so taught that they become a part of a boy's mental outfit,

make for that standard of life which exalteth a nation. No people have given nobler examples of patriotism and self-sacrifice for the common weal than the Romans.

Froude, in his address at St. Andrew's, says: "Our ancestors knew what they wanted to produce, and they suited the means to the end. They set out with the principle that every child born into the world should be taught his duty to God and man, but neither Knox, the founder of parish schools, nor any one in his days thought of what we call 'enlarging his mind.' A boy was taught reading, that he might read his Bible and learn to fear God, and be ashamed and afraid to do wrong."

Notwithstanding all the good work of the churches and Sabbath schools those connected with the administration of justice find that there is a very large number of people who seem to have no notion of the rights of others or of common honesty. Their idea of the golden rule is David Harum's, "Do unto the other fellow, as he would like to do unto you, only do it first."

In this country crimes of violence are happily, through the decrease of intemperance and increase of knowledge, decreasing. In 1877 the common assaults, felonious assaults, cuttings, woundings, stabbings and shootings with intent were 897; notwithstanding the increase in population, by 1899 they were reduced to 501. Crimes requiring steady nerves, sober and level heads and considerable intelligence, such as forgeries, false pretences, crooked book-keeping, embezzlement, counterfeiting, conspiracies to defraud insurance companies, organizing fraudulent joint stock companies, wrecking of banks and other companies, and obtaining valuable securities by tricks and frauds are increasing, but large numbers of these offenders escape punishment. They commit the offence and then "seek fresh fields and pastures new."

In the churches one hears learned discussions on creeds and controverted religious doctrines, some of which can be found in the Bible, and more of them, perhaps, outside of it, but few sermons on ordinary morality and fair dealing and the duty of man to his neighbor and to the State. It is unfortunate that to bring many a fellow to the knowledge of the Ten Commandments, you have first to commit him to jail, and when he passes inside the gates he finds them posted up in large letters in a conspicuous place for his moral improvement. Professor Scripture, of Yale College, in a paper on "Cross Education," quotes the following: "What is the use of teaching people to write and think, if you do not make them truth-

ful and honest? How is it better to educate liars and thieves so that they can steal more successfully in business and politics, where they cannot be caught, rather than leave them to the slums where the police *can* get them?" He has demonstrated that manual training has been found to improve the morals of many criminals.

The teacher has special opportunities for doing good. A fair percentage of his pupils and their parents never enter a church except at a wedding or funeral. If they are ever to get any instruction as to their duty to God, their fellowmen, and to the State in which they live and are protected in their rights, they must get them from the teacher or the street preacher. A teacher, if he has tact and brains sufficient to wad a gun with, has more opportunities than a clergyman for giving lessons in the principles of morality and duties of good citizenship. He has the pupils when their minds are, as to impressions, "as wax to receive, but marble to retain." What the preacher says is in this restless, critical, cynical age, looked upon by the children as part of his trade, as being, in fact, what he is paid for doing. The teacher who "knows how" can give this instruction without the pupil becoming aware that he is being preached to. The time and occasion must be carefully watched for and as carefully seized. The word to be "fitly spoken" must be "spoken in season" and not "out of season." There must be more teaching and less preaching to the pupil. The fact that out of the thousands of devoted clergymen so few avail themselves of the Provincial statutory opportunity to visit the schools and give religious instruction, is pretty conclusive evidence that they feel that their visits are not likely to be productive of much good to the pupil. The Public School teachers of our province are as good as can be expected from our system of small salaries commanding too often the services of very young men and women during their very youthful days. The "know how" to see when and where to use words of warning and reproof, words of counsel and encouragement which cause the pupil to look up, and which will lift up his mind and heart to higher and nobler things, is not equally possessed by all who have license to teach; license to deal with and direct the most delicate and complicated instruments in the universe, human minds and immortal souls.

No one doubts that long experience, tact, judgment, and an ever-present desire to cultivate the highest and best faculties of the pupil are necessary for success. What proportion of our teachers have the age and experience required for their work?

Bayard Taylor has well said, "To truth's house there is a single



door, which is experience. He teaches best who feels the hearts of all men in his breast, and knows their strength and weakness through his own."

Rev. A. H. K. Boyd, years ago, in the *Atlantic Monthly*, wrote an article, entitled "Concerning Veal," a "discourse of immaturity," in which he says: "I take veal, therefore, as the emblem of immaturity, as that which is now in a stage out of which it must grow, that which as time goes on will grow older, will probably grow better, will certainly grow very different." He illustrates the development of the youthful vealy mind in this way: "At thirty-five hunt up the yellow manuscript sermon of twenty-four. You will feel now but little sympathy with the literary style of that early composition. You will see extravagance and bombast where once you saw only eloquence and graphic power, and as for the graver and more important matter of the thought, I think you will be aware of a certain indefinable shallowness and crudity. Your growing experience has borne you beyond it. Your old sermons you cannot preach without recasting and re-writing them." His idea of veal is that it is good, but that it is not beef, that beef is better than veal.

Considering the vast interests at stake and the difficulties incident to character building, remembering how easy it is to begin wrong, and how difficult it is to get back to the right course, and how much time may be wasted in acquiring a limited education by the use of wrong methods, and what shipwrecks of human lives may be made for want of proper guidance and instruction, have we not had too much "veal" and too little "beef," so to speak, in this most important of professions?

Mr. Kelso, in his last report upon neglected children, which should be placed in the hands of every school-teacher, says: "There is a crucial moment in the life of every child when decision has to be given for a good or evil life. A little more abuse, a few extra curses and the die is cast for a career of reckless indulgence and self-abandonment; while on the other hand a few kindly-spoken words, a little kind help and the current of a young life is turned into a channel of worthy ambition and public service." Have promising teachers not been induced to turn their backs on the profession just as their fitness for and success in it had been assured, all because it promised so little as a life occupation? It requires much patriotism and love of humanity to be

"A man to all the country dear,  
Passing rich at £60 a year,"

the average salary of rural school-teachers in the Province of Ontario and the State of New York.

We had once a superannuation fund by which a teacher whose usefulness was gone through age or infirmity might retire and have some income between him and the poor-house. Salaries sufficient to enable a teacher to live as a teacher ought to live, and save money enough by careful investment or by life insurance, to provide for his old age, or some proper superannuation fund should be provided so that when the teacher reaches "the dead line" he may be retired from the service for the benefit of his pupils, without doing violence to the kindly feelings of charitable trustees whose backbones have been replaced by a cartilage, and without it being necessary to "shoot the old teacher." You know that Ian McLaren has propounded the serious question, "Shall the old ministers be shot?" What about the teachers who have reached the dead line also? Is it reached by an almanac progression to incapacity? What some one has said of preachers is applicable to teachers occasionally, namely, "There are some cases where preachers were never on the "live side" of the "dead line;" others crossed it when they were thirty or forty years old. They ceased to think, to study, to grow, ceased to be living factors, while others at an advanced age make up for powers decreased by age, by scholarship and experience.

The teacher, who with broken health and increasing responsibilities, male and female of different ages, sees no chance of improvement, financially, who "views with hollow eye and wrinkled brow an age of poverty, a lingering penance of misery," cannot think, study or grow, as a teacher should and must. His progression, then, towards the "dead line" is not of the almanac, but of the geometrical persuasion. If there is one profession which requires live men and women it is this one. A "revival preacher" has been described as a "preacher revived." The teacher to succeed must be revived daily and not "die daily" or walk around as if trying to save funeral expenses.

For one "of the larger heart and kinder hand," whose ambition is to live and work that his country shall have been the better because he lived and labored in it, and truly loved it, there is no better occupation than teaching. While you point your pupils with pride to the vast improvement in our people as to sobriety, temperance and intelligence, their benevolence and humanity in providing so well for the deaf, the dumb and blind, the idiotic, the insane:

for the reformation and care of neglected children, for the sick, the incurable, and the growing disposition to provide houses of refuge for the aged and infirm; to the founding and maintaining of benevolent societies for the relief and protection of the needy; to the many and increasing acts of true heroism in saving life, performed even by young children, you can encourage them to cultivate the same spirit which prompted the establishment of these noble charities, and the doing of such acts of heroism.

May you all feel it to be your pleasure as well as duty to impress upon them how well and successfully our pioneer men and women, though less blessed with education, and harassed by poverty and difficulties, have, during our short history, reclaimed half a continent, and made it to the immigrant a land of performance as well as a land of promise. You may, with pardonable pride, impress upon them the vast extent and variety of our natural resources, our unequalled systems of education, political and municipal government; show them that the boys, and quite possibly, the girls, in our Public Schools will soon be invested with the right of assisting in making wise and progressive legislation, by voting for good men and good measures. Teach them to abhor bribery in the use of their franchise, and to abominate corruption and wrong-doing by legislators and governments, no matter in which particular political wigwam they may find shelter. Teach them "that the noblest men and women are bred from ours, the Saxo-Norman race." Teach them to thank God that they are children of Britain, and heirs of all Britain's history, literature and glorious triumphs in war and peace, and that the spirit which called for volunteers to fight in South Africa, side by side with the troops of the Mother Country for the spread of British civilization, British justice, British liberty, and the integrity of the Empire, and which evoked such a hearty response from young Canadians from Cape Breton to Vancouver, was the true spirit of patriotism, the united spirit from England's colonies in arms in the "four corners of the world," saying to Britain's enemies:

"Take note, all ye  
Of the alien knee,  
Of faith that fired  
Our hearts and thews,  
One in our creed  
And one in our need  
In daring and deed  
We shall win, not lose."

- “ Be counselled, each  
 Of the alien's speech.  
 From Polar barren  
 To the Isle empearled ;  
 This shout you hear  
 So near and clear  
 Is the marching cheer  
 Of the Lords of the world.
- “ Stout heart by heart  
 We work our part  
 That light may broaden  
 And law command.  
 This is our place  
 By right of race  
 By God's good grace  
 And the strength of our hand.
- “ The strength of our hand  
 On every land  
 Till the master-work  
 Of the world be done ;  
 For the slave's release,  
 For the bond of peace,  
 That war may cease  
 From under the sun.”

### WHAT WE LACK.

PRINCIPAL GRANT, KINGSTON.

This is always a safe subject to take when addressing any educational association, because there will always be lack. “Not as though we had already attained, either were already perfect,” is the acknowledgment of sane men. There are, indeed, a few who think themselves perfect, but these are the talking bores, men without vision. I have known two or three of these in my time, and must confess to have heard of their demise with a sense of relief, feeling that they were too good for this world.

The education of a country is as complex as life. It deals with the training of our own children, our future men and women. Our system, therefore, should not be a copy of any other, and still less a patchwork made up of bits copied from other countries. It should be racy of the soil, while adhering to the fundamental principles which develop the human spirit and form character and citizenship. Neither should our system be stereotyped nor in

bondage to catch phrases. We are so apt to become the slaves of words. With a firm outline it should be flexible to local peculiarities and capable of continual expansion to meet the growth of the country and the facts of to-day. Thus, a system which suited Ontario forty or fifty years ago must be as inadequate to present conditions as a child's clothes to the stature of a man. Cleveland's message to Congress, "We have to deal not with a theory but with a condition," should never be forgotten by those who superintend and carry on the education of a country like Canada or even a Province like Ontario.

I have, then, to-night a text as big as life and Ontario put together. To treat it adequately, I ought to do as the Puritan preachers did, divide it into at least seven heads and subdivide each of these into at least seventeen subsections; or take up the average length of time, say, from three to seven hours which our parliamentary orators often require. But that might be tedious—to you. Listeners nowadays, M.P.'s always excepted, have not the digestion of the seventeenth century. I must therefore be satisfied on this occasion with referring to two or three of our deficiencies, and then when you ask me to speak to you again I shall probably take for a subject, "What more do we lack?"

That there may be no misunderstanding, let me impress on you what my subject is. It is not what we have, but what we lack. None of us ought to forget for a moment that for a young country we have much that may well be set down to our credit; that we are on the up-grade too; and that we have had men who have given time, thought and life to the improvement of education. Indeed, I would like no subject better than a review of the past so as to estimate critically what those who have gone before have done for us. But that is not the subject this evening. Possibly we have been too prone to treat that subject, and even to fancy that there was nothing now left to be done. That will never be our condition. After we have done our best, others will come here and eloquently descant on what they lack; for the human mind will always be growing and new conditions will always present themselves. Living men, too, will let the dead past bury its dead, and will preach the gospel which their time requires. Of course, we shall always have the dead as well as dead issues with us. Such are they who fancy that the system of education is everything, and who are in such love with the system that they never think of asking whether the end to which it is only the



means is really forthcoming or not. Their only idea is to add something to the system, to be ever pottering at it to make it a little more rigid and a little more cumbrous. I remember one of that class, now gone to his reward, who had visited Britain and who, as he fancied, had studied the venerable, complicated educational organism to be found there, if only a man has eyes in his head to see. Asking him on his return concerning his impressions—"Oh," he replied with a vacuous simper, "they are far behind us in everything." I said nothing. What could be said? Against stupidity the gods themselves fight in vain!

The great difficulty in dealing with my subject is not so much that Ontario is big and education complicated, but that I cannot get the data for making a full and adequate criticism. The reports of Ministers of Education are annually submitted to the Legislature, but these deal almost wholly with statistics, that is, with the mechanism of education as distinguished from its dynamics. In war great generals say that the moral is to the material as three to one. What is the proportion in education? I should say from 50 or 100 to 1. Of course, the general remarks of the Minister in his report give a résumé of the progress of the year, but these, while interesting, are of necessity very general. Were the Minister Solon himself, he cannot possibly know the whole educational life of the country at first hand, as it must be known by Inspectors of High Schools, for instance, who have devoted themselves for years to nothing but a detailed and faithful study of its condition, and who bring to the discharge of their duty some such culture, knowledge, philosophical spirit and capacity for criticism as that possessed by many of the Inspectors in Britain. We need only remember as an illustrious instance the late Matthew Arnold. But strange to say, we have no reports from our High School Inspectors. I have looked for them, but in vain, for many years. Why this lack? Surely the reason is not what was in a way suggested by something said last night in my hearing, to the effect that a man in the position of Principal or President of a self-governing University like Queen's had a freedom which neither a High School Inspector nor a man in the position of Principal or President of a State University had. Is it not understood that these gentlemen are free, and that they are under special obligation to give their highest services to the public? What service is so much needed as open, intelligent and independent criticism of the whole educational field at regular intervals? To give this may require some civic

courage, but certainly not more than we have a right to expect from men of light and leading. Their reports would enable any intelligent student to come to conclusions of value respecting our actual educational position, for an axiom universally admitted is, "If you wish to improve education you must begin at the top;" that is, begin with your universities, inspectors and the highest class of your teachers. It is true that without reports almost anyone can get some knowledge of our universities, for according to the last report of the Minister of Education we have only two university centres in Ontario—Toronto and Kingston. But how can anyone but an inspector visit 130 High Schools, form a comparative estimate of them, and, above all, give an adequate criticism regarding their defects in detail, or of the system as a whole, or of the additions and the subtractions now required for fitting them to do the best work?

Supposing the necessary data were supplied, how are they to be co-ordinated and utilized? No one would read a mass of reports from High School, Model School, Public School and Separate School inspectors, and it would be unwise to ask for carefully prepared reports if we had not competent persons to read, classify and sift them. Here is suggested an important function which could be discharged by a properly constituted advisory or consultative committee; a committee consisting, for instance, of the two High School inspectors, the Model School inspector, the President of the Provincial University, and along with these three or four of the strongest educational experts in Ontario, men admittedly above political or denominational partizanship, and whom the inspectors would serve but could not manage. There are two departments of public work, the one provincial and the other federal, which we can never allow without protest to become the prey of the partizan—our educational and our war power. In God's name let these at any rate be exempt from the spoils system.

To have our universities properly equipped for their work, to get the best possible inspectors and teachers, and to place the most mature intelligence of the country at the disposal of the Minister of Education would do much for us, particularly in the matter of supplying driving power in the right direction. Driving power is what we need! But hitherto it has been supplied chiefly by fussy people and fussier organizations. These, not satisfied with screaming at large through the press, worry the Minister to adopt this, that, or the other nostrum, and so bring in the millennium

without further delay, on pain of his party losing the next election. What an advantage for a harassed Minister to have a door of escape in the form of a suggestion to them, that a competent body be asked to give him a reasoned minute on the subject, for doubtless he is as anxious to bring in the millennium as anyone can be.

I have thus been led up to the great lack of which I wish to speak to-night—the lack of driving power all along the line, or the lack of the ideal element in education. That means, to drop metaphor or language which some may think indefinite, good teachers, and these permitted, guided, encouraged and stimulated to do their best possible work. By good teachers I mean—

(a) Well educated, if possible University-educated, men and women who intend to devote their lives to the profession; an object so important that we might congratulate ourselves if it be attained in the course of the next half century.

(b) Teachers filled with the sustained enthusiasm which can be aroused only if they are free, and free also to see and share in the end to which their work looks. The best work is never done by purely present attention. The best attention of the present comes from hope in the future. That hope our Public School teachers now have, only to the most limited extent. The curriculum to which they must slavishly adhere, no matter what their abilities or environment, is prepared for all alike at Toronto, and they are the victims of the formal examination craze. I say formal, because a good teacher is continually examining by the old Socratic method. They are expected to prepare their scholars equally up to the same point, though God has made them all different, the majority having the capacity for ordinary work, less or more, while two or three may be equal to blessing the nation or the world in the days to come. All having been uniformly and therefore tediously prepared, they vanish from the common school teacher's sight forever. Is it any wonder that the work is felt by teachers and scholars to be somewhat stale, flat and unprofitable, and that, as a rule, only those teachers remain in the profession who have few or no prospects elsewhere? That is the system, and what can be expected from it but what we get? How many Domsies have we in our country schools? I have not met them, whereas forty or fifty years ago I met scores in Scottish parish schools. You can read of one of them in prose poetry in the biography of the late Rev. Dr. John Cairns—that John Macgregor, namely, who made his sleepy little hamlet a source of intellectual life, who had sent seven or eight

students direct to the university where they had outstripped undergraduates from the city High Schools, who, seeing that little John Cairns had brains, put him into the Latin class without charging the extra fee, and who, when the boy had to be taken away from the school at the age of twelve years because of his parents' extreme poverty, proposed that if John would carry on his studies while herding during the day, his teacher would let him come to him three nights a week to rehearse what he had learned. Under our system John Cairns would never have been more than a herd. Under the Scottish absence of system he was offered the Presidency of Edinburgh University. He became the leader of the United Presbyterian Church, the principal of its college and a blessing to Scotland. Since his day, too, there have been improvements in the Scottish educational system, and a teacher would receive special allowance for training such a boy.

Objections are urged against permitting similar freedom in Canada, to which reference can be made only in the very briefest way.

(1) It is said that our teachers are not sufficiently educated to be so trusted. Even if that be so, it is always important to have a right ideal. Again, have we not inspectors and local boards to prevent abuse on the part of the erratic? Besides, is there any cure for the evils of liberty but a little more liberty?

(2) Our teachers have such small salaries. Let no one make light of the salary question, but men and women of the right stamp do not work for money only. Some are inspired by higher motives. And the salaries in Scotland were no higher than ours. Besides, we should do as is done in Britain when a teacher does higher work—give him from a central department a higher rate per pupil.

(3) Such freedom would lead to overlapping, and the High School might suffer. Now, overlapping is the first requisite in a good educational system. It is so in the shingling of a house, and the social organism is more complex than a roof. If a High School cannot stand against the competition of a common school, the sooner that High School goes to the wall the better.

(4) Even if a University graduate could be got to teach in a common school, freedom would give him too many subjects to teach, and the lower branches might suffer. Well, our programme is too rigid and too overcrowded, thanks to the formal examination craze, but my own experience suggests an answer to the objection. At the age of sixteen I had a school of fifty or sixty scholars, the

classes ranging from A B C to Latin, Greek, mathematics and navigation. The work was easy and better done, and felt by me to be more honorable than if I had been limited to our stereotyped curriculum. But then, you see, I had freedom, though it was a public school.

We boast that our system is democratic. That is just what it is not. You may call it socialistic, but it is not democratic. Democracy demands only equality of opportunity—not that all men or boys should be equal—and in its heart it craves for leadership. The great common Father does not make all men equal. With sublime impartiality He raises up poets and preachers from the huts of cotters and craftsmen, as well as from the palaces of peers and princes. Society should give all an equal chance of rising, and let us never forget that the best means of raising the mass is by encouraging the individual. In Britain the poorest can rise, thanks to comparative freedom, and to the “ladder of learning”—consisting of bursaries, exhibitions, and other forms of endowment attached to all kinds of schools and academies, connecting them with special colleges and universities—which has gradually been built up in almost every corner of the land. We have neither the freedom of the teacher, nor the “ladder of learning.” The poor man’s son can get only elementary knowledge in a rural school, and his parents cannot afford to send him away to the county High School. Should he earn enough to get there for a year or two, he must cram, and that is always fatal to culture: and there is little possibility thereafter of his getting to Kingston or Toronto; while should he graduate from the University at either place, how could he ever go for post-graduate study to Oxford or Cambridge, or to Germany? But what happens in Britain? Last year Cambridge had two senior wranglers, one the son of a wealthy Hindoo, the other the son of an English laborer! How can we construct a ladder of learning in Ontario? We cannot construct, but we might encourage it to grow.

It may be said that we have more freedom and elasticity in localities where continuation classes have been opened, or where there are graded and secondary schools. Continuation classes are a recent step in the right direction, but the reform does not go far enough, and it is not yet sufficiently encouraged. Lack of freedom applies to both graded and secondary schools, even in matters that are left entirely to the control of the local board. In one town it takes generally the same length of time, and that a very long time,



for the clever boys and girls to pass through the various grades up to the Entrance examination, as it takes the dullest. The duffers set the pace, to the hurt of the genius and of the whole school. The clever boy learns habits of inattention and indifference—the most fatal of habits—and permanent intellectual lethargy, the most fatal blight, while the duffer gets neither the spur nor the inspiration which the rapid promotion of his comrade might give to him. Some wise parents, noting this, keep their children at home until after the Christmas or Easter holidays, and then have the satisfaction of seeing them come out near the head of the list after three or six months, instead of a year's schooling. In another town a different method is pursued. They have quicker promotions, but the neighboring city knows nothing of the practice, and calmly pursues its own way to the satisfaction of inspector and teachers, while the Board naturally trusts its own officials, and probably has no knowledge of a better way.

The teachers in our secondary schools might surely be trusted with a larger measure of freedom than that allowed in common schools; but while one course leads to teachers' certificates, and another to university matriculation, in both the good old motto, "*Non multa, sed multum*," is disregarded. The pupils are treated as the guests in an Arkansas hotel, where there are always a great variety of dishes, and of necessity all badly cooked and ill served. The regulations permit a third course, but owing to the examination craze it is seldom taken even by those for whom it is suited. The consequences are inevitable. Too often, in my experience, the pupils cannot punctuate, cannot spell, cannot read half a dozen sentences in decent English; they are destitute of literary taste, their horizon is narrow, and their vocabulary is meagre as that of a savage. They do not know the meaning of words, while shades of meaning are out of the question. No wonder that in ordinary conversation they fall back on the English of yellow journalism, by preference on the coarsest vulgarisms of the sporting column. Of our glorious language, with all its inherited wealth of allusion, and of the literature and even the facts of the Bible they are singularly ignorant. I had intended to speak specially of this ignorance and the remedy for it, but noting that the subject was to be taken in afternoon addresses, I refrained this year. Let us have a smaller list of subjects, with a more accurate knowledge of them, and, what is still more important, greater freedom of the staff. Fortunately we have in Upper Canada College a secondary

school which has had a large measure of freedom from the beginning; and partly in consequence of that, its old boys have an attachment to it which ought to exist in connection with every school, and which, I may say, characterized the academy in which I studied in Pictou, N.S., fifty years ago. Just because Upper Canada College did not conform to the dull uniformity of our system, much prejudice formerly existed against it; so much so that ten years ago it seemed doomed to complete disestablishment and disendowment. Fortunately it survived that crisis, and we are glad to know that it is now doing splendid work. Its freedom permits it to make educational experiments which should suggest valuable lessons, to two of which I may refer.

(1) A course for boys, taken by many whose parents desire to have them simply well grounded in English. Classics and science are dropped, and a more extensive course in English and history, with French added, is given instead. Such a course should, I think, be encouraged in every secondary school. There is no better educational gymnastic than classics for boys who are to be scholars, but the number of scholars in a new country must be few. The many should also be cared for. They will be citizens, and they need the enriching of their minds, the widening of their outlook, the strengthening of their character, and the fitting them for the responsibilities and privileges of citizenship in the greatest empire that the earth has ever known. Our noble English literature and the marvellous history of civilized man supply abundant material for such a course. Many have neither the taste, ability nor time for classics, and as for the science taught in the majority of our secondary schools, I am bound to say that most authorities on the subject do not think it worth much.

(2) What is now rather loftily styled technical training, though it is not so styled in Upper Canada College, is given, but not as a substitute for any of the regular courses. It is an annex for boys who have mechanical aptitudes, and is taken as a substitute for play after the regular school hours, and on payment of an extra fee. If we are to have manual training or a technical class, this seems to me to indicate where and how it should come in. But we need experiments which grow out of the felt needs of particular schools or sections, instead of experiments originated in the brain of an official in a central office, and imposed by external authority on all the schools of the Province alike, as the study of agriculture by text-book has recently been imposed on all our common schools, in

defiance of the experience of other countries. For a review of that experience, see the report of the Royal Commission on Manual or Technical Training for the Primary Schools of Ireland.

It may be well to say here that if we are to have technical schools, and I very decidedly think we should, by all means let us have them of the right kind and in the right place, and let us remember that the right kind costs. They come after general education. The object of general education is our youth as members of society and spiritual beings, whereas the object of the technical school is simply the trade, business, profession or calling for which the man specialises subsequently. Therefore, before going into a technical school the lad should have completed his general education, and the more of that he gets the better mechanic, farmer, dairyman, miner, navigator, engineer, journalist, doctor, lawyer, clergyman or politician he will be. Evening classes are a poor substitute for a technical school. As a rule, it is a physiological impossibility for lads to work through the day and study at night. The keystone of general education is, of course, a university, and nothing shows our crudeness of thought more than the assumption continually made or implied that a university is for the education of professional men. I doubt if one-tenth of the undergraduates of Oxford and Cambridge have in view the old professions of the church, medicine or law. The work of the university is to educate men; and whether they go afterwards into the old professions or into the Home Civil Service or the India Civil, or journalism or literature, or commerce, trade or manufacture, or the army or navy, or journalism, or political, country, city or club life makes little matter. These educated men in Britain constitute the intellectual and dominating section of the community, and ensure its harmonious evolution and stability.

There is another lack to which Dr. Parkin has recently referred in Toronto, and on which, therefore, I shall not dwell. Our contrast to the Motherland as regards the prizes of our profession is very striking. There, presidents, principals or provosts of colleges, headmasters of Public Schools, inspectors and others have salaries ranging from \$5,000 to \$30,000 a year. The positions are for life, or till the men are promoted to be Archbishops of Canterbury, or to places of almost corresponding dignity and importance. There are indeed few positions sufficiently dignified to attract them from their work. In this premier Province of Greater Britain, on the contrary, is there a single educational position with the salary of a

puisne judgeship? Behold the measure of our public appreciation of the teaching profession! It may be said that the dollar standard is vulgar. Well, John Bull is the most sensible of men, and he knows that people always judge by deeds, not words. While we starve teachers or squeeze them out of the profession and offer no prizes to the ambitious and the able, we degrade the profession in public estimation, and then bombastic talk about honoring teachers is an offence against the reality of things resented by men of common-sense.

Who is to blame for our shortcomings? No one man. And no one man, however powerful, can bring us a remedy. The fault, if there be fault, lies with the community generally, and perhaps it is inevitable because incident to our stage of development. The remedy will come only with the gradual elevation of the community. We can all help here by doing our best, by avoiding absurd praises of ourselves and our institutions, by avoiding giving coarse flattery to the public, by speaking the truth fearlessly and in love, and by welcoming the critic even when we dissent from his criticisms.

I have not mentioned the department of my subject which I ought to know best—our University lack and the present condition of the University question in Ontario. My reasons are not only that it will be of comparatively limited interest, and that in dealing with it my impartiality would perhaps be questioned, but that it would require a whole night to itself. A more convenient season may come for dealing with this lack, and the necessity for a comprehensive measure to grapple with present needs and the facts of the whole province, should the question be again reopened.

And now, comrades, I bid you to honour your profession. We may well do so, for there is none like it. All the great benefactors of the race, the men who have widened thought, given sinews to its morality, strengthened and purified its hopes and impelled it along the path of progress to infinite horizons, have been teachers. Their spirits from their urns still rule the unnumbered millions of humanity.

Socrates, through the intellectual movement he inaugurated, and through his disciples, Plato and Aristotle, is the great teacher to-day in every University in Christendom. Gautama, who converted India from spiritual bondage and taught man to look for deliverance to inward culture and active virtue; Confucius, who gave political and social cohesion to China; Jesus, who revealed the



Father to all the orphan children of men, were known in their lives simply as teachers and poor men. Their kingdom was within. That was enough for them. It is enough, I think, for at least some of us.

Rev. Father Ryan, rector of St. Michael's Cathedral, said in substance: As the hour is late, I will not keep you long. I am exceedingly pleased to be here this evening. I have been always interested in the education question. I am, of course, especially interested in education in Ontario, and therefore in the work of this Association. I have made it my business to visit all the departments, and I have been very much pleased with the evidence I have seen and the accounts I have heard of our high literary standing and general educational progress. I know a good deal about education in other countries, and I am proud to say that this Canada of ours can, in educational matters and methods, most successfully compare with any country. As I must be brief, I will come to facts, and will say a word on our manual, mental and moral education. It is a great pleasure to me to be able to agree most cordially with the closing words of Dr. Grant's address, on the dignity, honor and sublime responsibility of the teaching profession. But I must join issue with the learned President of Queen's in his idea of what he calls our "lacks." I am, for the present, a man of facts; and the first fact is this: I am here as a delegate from the High School Board of Toronto, to which position I was appointed by the Separate School Board; the second fact is, that I have visited the various departments holding session in this Association, and listened attentively to the very instructive discussions; and the the third fact is, that, from the discussions I heard from practical men, the educationists of Ontario differ very materially from the opinions of the learned President of Queen's. He said: What we lack is more mental training. They said: What we want is more manual training. He said: What we lack, is "a driving power." They said: What we want is a *drawing* power. Now, I agree with our practical educationists, and I am going to tell you why. In the first place, when you find a representative body of intelligent, practical business men unite in a common opinion, you may be pretty certain that opinion is right, at least as far as it goes. Now, the almost unanimous opinion of the members of this Association is, that we want in our educational system generally, more manual training. I cordially agree with



that sentiment. I say in this new country of ours we certainly do want manual training. I use the word manual training for all the developments of what the President of Queen's very well said was the development of the hand and the mechanical arts, the agricultural pursuits, and the rest of it, tending to material education, material progress, material improvement. We need that in a young country like ours. We need artisans, and we need skilled artisans. We need agriculturists, and we need skilled agriculturists. And here I must differ from my learned friend. I do believe in a book, even in agriculture. They say, "Go out and look at the improvements, that is enough for you." No, we want principles; and the reason I believe in a book of agriculture is, that we want to raise agriculture to an art. One of the difficulties in our new countries is, that agriculture and the science and art and profession of agriculture has gone down, and so our young men leave the farm and come to the cities; you may raise beans without a book, you will never raise agriculture without a book. Therefore, we want this in our country, so I agree cordially with those men who go in for manual training; but I tell them that they want more than manual training. They are inclined to do away with the High School; they say, "What do we want with Latin and Greek, and the rest of it?" That is what we call literary education. One is the education of things and the other is the education of thoughts; and here again I disagree with my friend that is so experienced in educational things in saying that education begins from the top. All education begins from the bottom. You must have the foundation like a house, and so he said himself, speaking of the knowledge of words. Words cannot be figures; we must have a knowledge of figures for numbers, statistics and facts; but words are not the expression of things, they are the expression of thoughts; therefore we must have literature; we must have mental training; and as manual training is the training in the use of things and tools, so mental training is the training in the knowledge of thoughts. And we need this mental training, because in our young country we need not only artisans for the city and farmers for the country, but we need legislators for the nation. One of these good men said, "We have too many doctors and too many lawyers, and too many ministers who are going around ruining the country." I do not know; I do not think so—not for the ministers anyway. I took a census a year ago about our lawyers, and about our legislators, and about our doctors, and

about our literary men and newspaper men, and I found there were very few Canadians; and so we import all these men, and we think we should not import the laborers. Why should we not have Canadian writers, and Canadian orators, and Canadian statesmen, and Canadian politicians of the right sort? And how can we have them without mental training? This is a young country, but it is a great country, with a magnificent future. Therefore, I say to these trustees with whom I sympathize most sincerely, "Have manual training certainly; have artisans and skilled artisans, and mechanics of the first degree and power in all the departments of mechanical and industrial forces to raise up our great country with its splendid material resources: but, have more than that, or you will be hewers of wood and drawers of water. Do not import your writers. Do not import your poets; do not import the novelists; do not import the newspaper men; and do not import the politicians. Have them of your own make, and unless you give them intellectual and mental training and mental culture you cannot have them." As the President very well said, "Who are the ruling powers in the great British Empire? They are not the lawyers or the doctors; they are the statesmen." Where are the statesmen formed? Formed by mental culture. That is what we want here. Therefore, I say to my good friends, the trustees of the High Schools and Public Schools, "Hold on to the manual training, but do not forget the mental." And the third thing, the religious, as the doctor well said, is the third "R." I was struck by the opening address of our President, so very beautifully put, showing a literary power as well as an experience in teaching, and he brought out the responsibility of the teachers, especially in the third "R"—religion. Here, I think, my friends, you must come to us, said the good Father, pleasantly. We go to our schools, we go every day, and give an hour every day to the third "R"; and I myself, occupied as I am, and a very busy man, go myself once a week and give an hour once a week to the third "R," because I consider that the most important. He said again that we want more than the mechanism of life, we want more than machinists; we want more than mechanics; we want more than farmers; we want more even than writers, or politicians, or statesmen, we want men; and I do not believe that there ever was a country in the world that was so calculated to produce men in the highest sense of the word, physically, intellectually and morally, as this Canada of ours. The doctor said—of course, with pardon

for saying it—that the Briton was a type. Well, anyhow he is only one type; but here we have all the types; we have the Briton, and the Scot, and the Celt, and the Saxon, and all round about formed into the Canadian; but what I want most is to amalgamate all of us to form the Canadian. Let us not speak of the static or the dynamic power, the driving power in education; what we need is the leading power. I do not believe in the dynamic force that drives, but I do believe in the ideal that leads onward and upward, and that is the power for Canada.

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## COLLEGE AND HIGH SCHOOL DEPARTMENT.

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*MANUAL TRAINING AND TECHNICAL EDUCATION IN GERMANY.*

JAMES LOUDON, LL.D., TORONTO.

I have been asked to speak on "Manual Training and Technical Education in Germany," in view, I presume, of the proposals which have been recently made to introduce these subjects, in some form or other, into our Primary and Secondary Schools. Such a step, if taken, might involve very serious consequences to our educational system, might indeed prove to be a leap in the dark; and hence, I trust, that care will be taken to have the whole subject thoroughly discussed, and the fullest information obtained as to the means taken in other countries to promote these particular branches of education. In looking abroad one naturally turns to Germany as a country not likely to have neglected such matters, and he is not disappointed.

And, first, as to manual training. As early as the last quarter of the eighteenth century there was a movement all over Germany to establish schools for this purpose (at that time called "*Industrieschulen*"), the professed object being to cultivate, especially among the children of the lower classes, a love of work. Such schools were established in many of the German States; and in Baden, Bavaria and Wurtemberg, attendance was even compulsory. The subjects taught were sewing, lace-making, knitting, spinning, wood-carving, basket-making, gardening, care of bees, silkworms, etc. The movement, however, though it had a temporary success did not last long, for none of these schools survived the first decade of the present century.

At the present time compulsory manual training is universal in the Elementary Public Schools, but it is confined to girls from six to fourteen years of age. The course of instruction includes sewing, knitting, embroidery, etc., and sometimes cooking and house-keeping, the teacher not being a Public School teacher, but one who has passed a special examination for this purpose.

On the other hand, manual training for boys has been introduced into only a few of the Elementary Public Schools, and is never compulsory—not even in Baden, where it is on the Public School curriculum. The exercises, which are confined to boys between eleven and fourteen years of age, consist of wood-carving, after simple geometrical patterns, and with the simplest tools; and modelling in clay, paper or cardboard. All work which could be regarded as a preparation for a special trade, is carefully avoided. Indeed, in the majority of these schools, the following kinds of work, in accordance with the principles laid down by the “*Deutscher Verein für Knaben-Handarbeit*,” are excluded:

- (1) All merely mechanical work.
- (2) All work which aims at making money.
- (3) All work which aims at a preparation for a special trade.
- (4) All work which aims at merely stimulating diligence.

Although the workshops connected with the Elementary Public Schools are very few in number (there were only forty in all Germany in 1891), there are many more maintained by municipalities and private corporations. In these cases the character of the work may be more pretentious. In the workshops connected with the Society for Promoting Popular Education at Munich, for example, the course includes wood-turning, metal work and carpenter work, in addition to work in paper and cardboard. Instruction in all cases is given by men specially qualified therefor.

The following figures will serve to show the extent to which the subject of manual training was cultivated in Germany in 1891. In that year there were 328 workshops, attended by 14,215 pupils, and taught by 468 masters. Of these workshops 126 were private concerns, 40 were connected with Public Elementary Schools, 9 with High Schools, and 12 with Normal Schools, whilst the remaining 141 were connected with special schools designed for boys who were either undesirable or ineligible in the other schools.

With regard to the subject of technical education,\* it seems necessary, in view of the loose way in which the term is occasionally used, to define it as “instruction in those principles of Science and Art which are applicable to industrial pursuits.” This is the sense in which the term is generally used by those engaged in this branch of education. With this restricted definition it will be easy to avoid confounding technical education with manual training.

\*This subject has been treated more fully in President Loudon's Convocation Address, October, 1899.



Now, what place does technical training hold in the German educational system? When we consider that system as a whole, we are at once struck with the fact that a very sharp line of demarcation is drawn between general and technical education. In no country is general education wider or more general, and in no country is technical education more severely special. The Elementary School with its three grades or classes, the Secondary Schools (Gymnasium, Realschule, etc.), and the universities cover the whole ground of general education. Various classes of schools, to which I shall now refer somewhat in detail, cover the whole field of technical education.

The lowest grade of school which gives technical training is the so-called Fortbildungsschule, *i.e.*, a school for supplementing the work of the elementary schools. This school is the point at which the general and technical systems overlap. These schools vary according to locality and prevailing industries. A boy leaves the Elementary School (what we should call the Public School), and becomes an apprentice. While an apprentice, he must attend the Fortbildungsschule at least up to his eighteenth year. But he does not attend to learn a trade. These schools do not teach trades either wholly or in part. Their object is (1) to supplement and continue the general instruction of the Elementary School, and (2) to give elementary technical instruction, such as drawing or the like, bearing on the various trades represented by the pupils in attendance. A typical curriculum is that of the school at Nürnberg, the technical division of which includes in its lower course: German language, composition, elementary economics, physics and chemistry (technical), elementary physiology and hygiene, arithmetic and mensuration, together with drawing (freehand and linear), to which special importance is attached. In its more advanced course, book-keeping, commercial correspondence, higher commercial and technical arithmetic and technical drawing are prominent subjects. The school has also a more elementary course of general learning with the merest beginnings of technical instruction in business correspondence, etc. To illustrate the variation in the technical part of the course, it may be noted that in this school wood-workers, metal-workers, lithographers and painters have special and extensive courses of drawing; waiters and barbers take French instead of drawing; bakers and butchers are very properly relieved of drawing. The general subjects are the same for all. Instruction is given evenings, mornings, and Sundays, to suit the hour of

apprentices and laborers, for whom the Fortbildungsschule practically exists. In Hamburg, for example, in 1898, out of 3,042 pupils, 2,424 were apprentices or helpers; 486 were schoolboys taking special subjects, such as drawing. No less than forty trades are represented in the Hamburg schools, and the technical part of the curriculum is correspondingly elastic.

Next above the Fortbildungsschule we come to a numerous class of schools. The whole class is denoted by the terms *Höhere Industrieschulen*, and *Technische Fachschulen*, *i.e.*, technical schools of a grade higher than the elementary. I might explain parenthetically that, though these are called "higher" schools, curiously enough the next grade above them is known as the "technical high school." Coming back now to these so-called "higher" schools, we note as the divisions of them, first, the *Baugewerkschulen* and *Technica*. As an example of the former may be cited the *Baugewerkschule*, or school for the building trades, at Hamburg, attended by bricklayers, stone masons and carpenters only—the total number in 1898 being 45 in summer and 256 in winter. The school is under the direction of an architect, and the curriculum forms part of the course for architects. As an example of a *Technicum*, may be mentioned that at Mittweida (in Saxony) for the training of men as mechanical and electrical engineers, and also as foremen in electrical workshops, etc.

Secondly, we have in this class *Gewerbeschulen* (schools for artisans). As an example of them may be mentioned the *Kunstgewerbeschule* (a school for the more artistic trades), at Hamburg, attended by carvers, sculptors, engravers, painters, cabinetmakers and decorators.

Third, we have technical schools for single trades, *e.g.*, the school for tanners at Freiberg, schools for watchmakers, gardeners, etc.

Fourth, there are still in the class of "higher" schools, the commercial schools. It is worth noting that French and English form part of the curriculum in these schools, and that the pupils consist almost altogether of those actually engaged in business. Thus, at Hamburg, of the 174 pupils in attendance in 1898 only four were not engaged in business.

We come now to the schools of highest grade among which are the *Technische Hochschulen* (or technical high schools), known also as *Polytechnica*, which take rank with the universities, and train men as engineers, architects, chemists, physicists, etc. Of

these academies, which correspond in general to the School of Practical Science with us, Germany possesses nine. In this highest grade we have also such institutions as the famous Berg-Academie, or mining academy, in Freiberg, and the Forst-Academien, or schools of forestry, at Neustadt-Eberswald, Aschaffenberg, etc. The latter are mentioned on account of the interest which the subject of Forestry should have for us. In addition to all these, there are the universities, 21 in number, which are intimately connected through their scientific departments with the highest interests of trade.

An idea of the general diffusion of technical education may be gained from the statistics regarding Saxony, with its 4,000,000 inhabitants. It possesses

112 Fortbildungsschulen with.....	10,000 pupils.
39 Höhere Industrieschulen with....	10,000 “
44 Commercial Schools “ ....	4,800 “
11 Agricultural “ “ ....	700 “
25 Technical Schools for women and girls with.....	4,000 “

The city of Hamburg alone, with a population of about 700,000, has 17 technical schools with almost 5,000 pupils.

Having thus briefly outlined the systems of manual training and technical education, as they exist in Germany, let me add a few remarks.

Firstly, as regards manual training for boys, the chief aims seem to be (1) to train the mind by cultivating the power of exact observation ; (2) to give boys a general manual dexterity ; and (3) to inspire them with a respect for work, by showing them that so-called manual or mechanical work is essentially mental. The chief difficulty in introducing manual training into the schools of this country is the lack of properly qualified teachers. In the absence of such teachers, it might be well, should it be decided to make some provision for the subject at an early date, to combine it with practical instruction in Geometry, Physics and Geography. The construction of geometrical figures, of simple apparatus, of relief maps, etc., out of clay, cardboard, wire, etc., will indicate what I mean in this connection. The best manual training, however, in my opinion, is to be obtained from thorough instruction in two subjects which are not usually classed under this head, viz., writing and drawing (freehand and geometrical). The paramount

importance of the latter subject in all courses of technical training will, I hope, command assent to this view. It is well to remember, in connection with the subject of manual training for boys, that the performance of heavy work, such as that done at a carpenter's bench, for instance, will unfit them for finer work, especially if it is of an artistic nature.

Secondly, as regards the technical educational system of Germany, it may be remarked that it covers the whole field of industry and commerce. It distinguishes between the training of the director, the foreman, and the operative. Before special technical training of any kind is imparted the general knowledge of the pupil must be assured.

Technical training of the lowest grade is confined to those who are learning or have learned a trade. This is undoubtedly the time at which this training will count for most.

In view of this very practical object this lower technical training is varied to suit the direct needs of the pupil.

The fundamental principle of the whole system of lower technical training is to give the artisan some of the special knowledge possessed by his professional chief, in order that he may make a more efficient workman.

The system has achieved the practical result in Germany of training up an army of thoroughly efficient workmen under the direction of leaders of the highest scientific and technical attainments. It is a system, however, which has grown naturally out of the peculiar conditions of that country. It cannot be transplanted or reduplicated as a whole, and yet in working out the problem under the new conditions of this continent, the German system is most worthy of study (I do not say of imitation) in order that the features best suited to our wants may be adopted, and the best results of the experience gained by the Germans may be utilized.

*SECONDARY EDUCATION IN ONTARIO, ITS DEVELOPMENT  
PRESENT CONDITION, AND ITS NEEDS.*

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The Secondary Schools of Ontario hold a position of such importance in the educational system of our province, that a brief historical account of their development seems desirable, in order to appreciate and understand the part they play in meeting the educational needs of the people. The present organization and actual working of these schools are an evolution of the old District and Grammar School system which came into existence in the early years of this century. When Ontario (then called Upper Canada) was nothing more than a huge wilderness with a few small settlements scattered along its lakes and rivers, it occurred to its college-educated governors that the young province should be equipped with a University, and schools which would prepare the children of the official and governing classes for entrance into such an institution. Common Schools, or schools for the common people, were of little importance in the estimation of those who, at that time, controlled the destinies of Upper Canada. I wish to make this point clear, because it is now so generally felt that the Secondary School is the "poor man's college," that we are apt to forget the radical change which has taken place in public opinion during the last half century, regarding these institutions. It is undoubtedly true that for a long time the District and Grammar Schools were looked upon as institutions established for the special benefit of the wealthy and aristocratic elements in the community. As might be expected the masses viewed them with small favor, and gave them but a grudging support. Now all this has been changed. The elements in our community that formerly patronized and received benefit from the Grammar Schools, now to a considerable extent support and patronize another class of Secondary Schools, having little or no connection with the State. The effort to establish a University and Grammar Schools without first laying a deep and broad foundation in an efficient Public School system, has been rightly compared to the task of standing a pyramid upon its apex



instead of on its base. Yet that was the policy pursued in Upper Canada for fully half a century. The history of these District or Grammar Schools may now be outlined briefly.

The first Classical or Grammar School founded in Ontario was at Kingston, in the year 1785, under the charge of Dr. Stuart. Somewhat similar institutions were founded a little later at Niagara, York and Cornwall. These were not public institutions, but private schools supported by fees. State action dates from 1797, when a memorial was sent by the Upper Canada Legislature to George III. praying that a grant of land be given for endowment of a Grammar School in each District, and a University for the whole province. To this memorial His Majesty graciously assented, and a recommendation followed that "500,000 acres of land be set apart for the establishment of a Grammar School in each District, and a central University for the whole province." Moderate salaries were proposed for the masters; Kingston, Niagara, Cornwall and Sandwich were chosen as sites for the schools, while York (now Toronto) was selected as the seat of the pioneer University. After some negotiation, John Strachan, a teacher at Kettle, Scotland, was selected as the head of the University. This young school-master, soon to become famous in our history, arrived in Kingston on the last day of the year 1799, and found that the scheme to found a College was indefinitely postponed. With characteristic energy he proceeded to establish a Private School, first at Kingston, and a few years later at Cornwall. This school at Cornwall, soon to become widely and favorably known, was for many years the chief educational institution in the Province. In 1806 an Act was passed by the Legislature, establishing District or Grammar Schools in the eight districts of the Province. Money was voted to pay the salaries of the masters, who were engaged by trustees appointed by the Governor, the sanction of the latter to the appointments being considered necessary. Gradually the number of these District or Grammar Schools increased, for we find from a report dated 1828, that there were in existence at that time, eleven Grammar Schools, with an attendance of 372. The course of study in these institutions permitted the attendance of very young pupils, and included little beyond Classics, Mathematics, French and the elements of English. The pupils were, in the main, the children of the wealthy and official elements in the community, although an effort was made to have admitted, free of charge, a few pupils from the Common Schools. This well-meant attempt to give the benefits of a

liberal education to a select number, chosen from the masses, was an utter failure. Doubtless a few poor but energetic students, like the late Hon. John Sandfield Macdonald, found a place in the class-roll of these schools, but the number must have been exceedingly limited.

The year 1828 is memorable as the year in which Upper Canada College was founded. The project of establishing a Provincial University had for the time been abandoned; and the failure of the scheme called into existence Upper Canada College, as an educational substitute. This well-known institution had for its model the great Public Schools of England, and was endowed with a large grant of public land. Like the District or Grammar School, it was supported mainly by the official and aristocratic elements, and for many years it was the chief educational institution in the Province.

The character of this paper will not permit of a further detailed account of the growth and working of these Grammar Schools. As already indicated they derived their support almost entirely from fees and Government grants. The municipalities or districts in which they were situated did but little to encourage them. Nevertheless they served an important purpose in furnishing a liberal education to those fitting themselves for professional and public careers, for at this time Universities were not yet in existence. They were the highest rungs in our provincial educational ladder.

It is scarcely necessary to say that the appointment of the Rev. Dr. Ryerson, in 1844, as the Chief Superintendent of Education in Upper Canada, had a profound influence upon our Secondary as well as our Public or Common School education. Yet, it seems to me that for many years the revolution he wrought in our educational system had no very marked effect upon the Grammar Schools of the Province. Doubtless the great improvement that took place in our Common School education must have had a beneficial effect upon the Grammar Schools. Increase in wealth and general intelligence must have created a desire for a more liberal education than what the Common School could furnish, and this would tend to increase the number of pupils in the Grammar Schools. It was also the policy of Dr. Ryerson to enlist the active co-operation of the municipalities in the support of the Grammar Schools, as he rightly considered that the community should recognize that higher education was as much in the interest of the State as that furnished by

the Common Schools. Hence we find that this far-seeing friend of education was unceasing in his efforts to overcome the apathy of the general public towards higher education. That his efforts were not wholly unsuccessful, is shown by the great increase in the number of Grammar Schools that took place during his superintendency, as well as in the more liberal aid given by the municipalities. It must be confessed, however, that the increase in the number of Grammar Schools was largely due to the desire to obtain as much as possible of the Government grant towards education. Grammar Schools, it must be remembered, received their main support from Government grants—grants, too, much more liberal than those given to the Common Schools. It was the policy of Dr. Ryerson to have not only the Common Schools free from charges for tuition, but also the Grammar Schools. To accomplish this task required persistent and tactful efforts on the part of the Chief Superintendent. The process of educating public opinion to this end was carried on from year to year, and ended in giving Ontario free Public Schools. To a much more limited extent he was successful in inducing the municipalities to make the Grammar Schools free; although a reference to the educational reports of forty years ago shows that many Grammar Schools had at that time opened their doors without charge.

Before noticing some very important legislation that took place under the Ryerson *régime*, it may be permitted to call attention to some features of the secondary education of the time prior to 1853. In the first place, there seems to have been no particular educational qualifications demanded by the State of the Grammar School masters. In the next place, no entrance examinations had to be passed to secure admission. In the third place, girls were not admitted. At that time a classical education was not deemed the proper thing for young ladies. Hence we find a multitude of private schools, seminaries and academies where young ladies were given a so-called higher education. Co-education was frowned upon by the highest educational authorities, among whom we may place Dr. Ryerson himself. \*

According to our present ideals, the curriculum of these Grammar Schools was a very limited one. Very few pupils ever found their way into Plane Trigonometry, Algebra and Euclid. Latin was studied very generally, but Greek had few friends. French had a place, but German was unknown. Of Science, we may say it was practically non-existent. Literature and History received the

crudest kind of treatment. It is safe to say that beyond Reading, Writing, Spelling and Latin, nothing was taught as we now think it should be taught.

The building and equipment of these Grammar Schools were of the most defective and imperfect character. Very often the Grammar School was in the same building as the Common School—a kind of upper room, in which the higher pupils received a so-called classical education from the one or, at most, two masters employed.

The year 1853 marks a change for the better, and several steps are taken in advance. Hitherto the Grammar School was managed by a Board of Trustees, distinct from the Common School Board. In fact, we find that these trustees for a long time were appointed by the Government. Now we have Union Boards called into existence. Provision was made for a Government inspection, and a programme of studies was outlined and prescribed. Head-masters were required to be graduates in Arts, or to hold certificates granted by the Council of Public Instruction. As a report of Dr. Ryerson shows, the inspection of Grammar Schools soon brought to light their utter inefficiency. Many schools were in existence solely for the purpose of securing a share of the Grammar School Fund. This and other evils led to the legislation of 1865, by which the "undue multiplication of Grammar Schools was prevented, the duties of Grammar Schools defined, and an amount of local support required, equal, at least, to one-half the amount of the apportionment from the Grammar School Fund." The Government grant was made on the basis of the average attendance of pupils in the prescribed programme of studies, Latin being deemed an essential. An improved curriculum was drafted and put into force, in which English received attention; pupils were to pass an entrance examination held by the inspector; and last, but not least, girls were to be admitted for the purpose of studying English and French. That girls might study Latin was not considered a possibility, much less a probability. Yet the ingenuity of trustees and teachers was found equal to the occasion. The Government grant was based upon the average attendance in certain prescribed studies, one of which was Latin. Girls taking English and French were not counted as Grammar School pupils in the apportionment of the grant. Unfortunately for the Government treasury the law did not specify which sex should be permitted to study Latin, and soon the Grammar Schools were full of girls taking homeopathic



doses of Latin grammar, and little or no French. The fair sex was being initiated into the mysteries of the dead languages, and was helping to fill the coffers of the Grammar Schools at the public expense. The Chief Superintendent was in a state of consternation and wrath, but could find no better remedy than the proposal that for the purpose of computing the average attendance, *two* girls should be held as equivalent to *one* boy.

We have now reached a most important point in the development of our Secondary School system. What follows may be called the modern history of our Secondary Schools. Changes are exceedingly numerous and frequent—in fact, bewilderingly frequent. From whatever point of view we look at the subject, we are impressed with the fact that the High School or Collegiate Institute of to-day (the name was changed in 1871) is markedly different from the Grammar School of thirty years ago. In buildings, equipment, attendance, qualification of teachers, municipal support, course of study, text-books, methods, we have made the most remarkable progress. If asked to state the cause or causes of this advancement, aside from the improvement in our Public Schools, I would be inclined to suggest that it began with a remarkable report made by Rev. Prof. George Paxton Young, the Grammar School Inspector, in the year 1866. This report is too lengthy to analyze, but the scathing criticism of the Grammar Schools of the day and its broad and comprehensive views of educational reform revolutionized the secondary education of the Province. Prof. Young was a profound scholar and one of the deepest thinkers of his day, besides standing easily first among Canadian educationists, as an inspiring teacher. His visits of inspection to the Grammar School were memorable events in the history of these institutions, for with him came life, energy, encouragement, stimulus, and kindly but healthy criticism.

Referring, then, to Prof. Young's reports of 1866 and 1867, we find that he unsparingly condemns the system of distribution of the Government grant, the character of the education given, the relation existing between the Common and the Grammar Schools, and above all the tendency existing to degrade the Common Schools in the interests of the Grammar Schools. The evils specially noted are crowding the Grammar Schools with pupils that should have been left in the Common Schools to receive some knowledge of the elements of an English education before being thrust into the study of Latin and Greek. His report fairly



bristles with illustrations of the gross ignorance of the pupils (in the Grammar Schools) of the most elementary knowledge of English grammar and literature. This evil, of course, originated in the desire of the trustees of these schools to secure as large a share as possible of the Government grant, this grant, as already pointed out, being apportioned on the basis of the average attendance of pupils taking a classical course. In consequence, the higher grades of the Common Schools were depleted of their pupils, to be thrust *nolens, volens*, into classes in Latin Grammar. The result was disastrous to both the Common and Grammar Schools. While the study of English branches was grossly neglected, the instruction given in Latin and Greek was of the most farcical character. Thus the main object of the Grammar Schools, viz., the furnishing of a higher and more liberal education in English, Latin and Greek, was almost wholly frustrated. My excuse for dwelling upon this point is that the very evil so lucidly explained, and so strongly denounced by Prof. Young, thirty years ago, is once more threatening the usefulness of our High Schools and Collegiate Institutes, as will be seen further on.

Prof. Young's remedy for the ills of his day was the apportionment of the Government grant upon a different basis. He suggested that *results* should be an important factor in determining the grant, but to secure a fairly accurate knowledge of the efficiency of the different schools, it would be necessary to have a more complete system of inspection. To that end he recommended the appointment of three District Inspectors, whose work might be controlled and harmonized by a Chief Inspector. He also emphasized very strongly the importance and necessity of giving more prominence to the study of English branches in our Secondary Schools, as he considered that the great majority of the pupils taking Latin and Greek were practically wasting their time.

Prof. Young's inspectorate ended in 1868, but the fruits of his labors and his suggestions were soon seen. In 1871 an important Act was passed by the Ontario Legislature, which did much to shape the future course of Secondary Education.

Four points may be noted regarding this legislation :

1. Entrance Examinations to High Schools were in the future to be on the subjects (with a few exceptions) taught in the Fourth Form of the Public Schools, and the examination was to be a written one. This examination, however, was entirely local in its character, and consequently the standard very variable and indefinite.

2. A definite programme of studies was presented for the High Schools, so that their work should not conflict or overlap that of the Public Schools.

3. Municipal aid to the High Schools was now rendered imperative, and the Government grant to the High Schools considerably increased.

4. To encourage the establishment of better equipped classical schools, the name of Collegiate Institute was granted to High Schools which could satisfy certain prescribed conditions. These conditions were as follows:

(a) The employment of *four* masters.

(b) An average attendance of at least *sixty* pupils studying Latin or Greek.

To encourage the High Schools to reach this higher standard Collegiate Institutes were to receive an additional grant of \$750 per annum from the public treasury, in addition to the prestige the name conferred. A reference to the Educational report of this time shows that eight Collegiate Institutes were at once established, as a result of the new legislation.

Still results were unsatisfactory, and further action was deemed necessary. The entrance examinations were in 1873 made uniform, the questions being prepared and sent to the different localities or examination centres by a central Board of Examiners. As a further check upon that local enthusiasm for higher education which had led to the admission of unfit pupils into the High Schools, the answers of the candidates had to be sent to headquarters for revision by the inspectors. Still the inspectors were dissatisfied. The principle of "payment by results" had been accepted, but a grave difficulty arose in determining the "results." After much discussion and anxious deliberation it was decided to establish another examination, to be known as the "Intermediate," because this examination marked a stage in the pupil's development "intermediate" between the beginning and end of his High School career. Certain subjects were prescribed for examination purposes, a certain percentage was exacted, and on the "results" of these examinations, a certain amount of the Government grant was apportioned. The examinations were at first held twice a year, and then began the most desperate struggle for a share of the Government grant known in our educational history. "Cram" was king for the time being. Nothing was worth teaching that did not directly tend to pass as many candidates as possible. The

health of the teachers, and the true intellectual development of the pupils were sacrificed remorselessly upon the altar of this examination Moloch. But the "fever" died out in a few years. So many pupils passed the "Intermediate" that the coveted Government grant became almost valueless, and the cry went forth for a return to more rational methods. In less than seven years the "Intermediate" was buried, and "payment by results" took another form. In 1885 it was decided to apportion the Government grant on the basis of (1) salaries paid to masters and assistants; (2) the character and equipments of school buildings and appendages; (3) average attendance. If we add to this that a fixed minimum grant is given to every High School and Collegiate Institute, we have the basis on which the grant is now distributed.

In the meantime other changes of an important and beneficial kind had been carried out. Three inspectors were appointed instead of one, viz., Messrs. J. A. McLellan, J. M. Buchan and S. Marling. These gentlemen were all accomplished and experienced teachers, and the services they rendered our High Schools should not be forgotten. The first named, J. A. McLellan, LL.D., was an enthusiast for mathematical studies, while Messrs. Buchan and Marling were deeply interested in English and history, and in the study of languages. Under the dominating influence of Dr. McLellan, mathematics took the first place in our secondary schools, a place they have held until very recently. The whole method of teaching arithmetic and algebra was revolutionized. *Reason* took the place of *rules*; short and direct methods in algebra drove out the old cumbrous and tedious processes. The influence of this new revival of mathematics extended far beyond the High Schools; it was soon and permanently felt in our universities. No branch of higher education is so thoroughly taught, and in no branch is the standard so high at our provincial university as that of mathematics. Considerable attention was also devoted to English studies, but the complaint was soon heard that an undue portion of the time and energy of the teachers and pupils was given to mathematics. Doubtless this complaint had some justification, but the reproach, if such, has since been thoroughly removed.

At this point it may be well to notice that the duties of the inspector or inspectors twenty years ago were very different from what they are to-day. Besides the work of inspection pure and simple, inspectors like Messrs. Young, Mackenzie, McLellan, Buchan and Marling taught classes in the presence of the masters, and thus

indicated directly by example the best methods of instruction of the day. A visit of the inspector was looked upon as an event of no small importance to the pupils, as well as to the teachers. Encouragement and stimulus were given for greater and better efforts, and no young teacher anxious to do his best but felt that the inspector was his best friend. To-day the work of the inspector is almost wholly critical. For this change there is a reason. It would be difficult to find now two gentlemen fully competent to take charge of all the classes in our extended curriculum, and illustrate by actual example how a subject should be taught. Further, under our present system considerable attention is given to the professional training of High School masters, and all the best and newest methods are supposed to be taught in our training schools. That a High School master should know something of the actual work of teaching before assuming his duties was recognized in the Act of 1874, by which it became necessary for an applicant for a head-master's certificate to furnish to the Council of Public Instruction some evidence of his knowledge of the science and art of teaching. Parenthetically, it may be said that a very small amount of evidence was sufficient to secure that coveted document. From that day to this the law has become increasingly strict in demanding, not only from head-masters, but from his assistants, *professional*, as well as *non-professional*, or scholastic attainments. Training schools very soon were established at different points for High School assistants, and no teacher was permitted to assume the duties of a head-master, unless he had at first served an apprenticeship as an assistant. Specialists in the four departments of mathematics, classics, modern languages and science were soon required before a High School could become a Collegiate Institute. Then the School of Pedagogy was established to do the work of the training institutes, and this school, under its more dignified title of Normal College, is now the sole institution where the raw university graduate or holder of a Senior Leaving certificate is fitted and prepared for High School duties. That a few months' training in the Normal College is sufficient to make a skilled and successful teacher no sane person thinks for one moment, but it is undoubtedly true that the instruction and practice in teaching there obtained must be of very considerable value.

I have dwelt somewhat at length on the improvement in the internal conditions of our High Schools, but it should also be pointed out that external conditions were showing equal improve-



ment. In 1879 the law was changed so that the local grant to High Schools should be equal at least to the Government grant. That the municipalities had at last begun to realize the importance of the Secondary School is shown by the willingness now exhibited, in many cases, to make them free to the children of all resident tax-payers (sometimes to those of non-residents) by the large sums raised through taxation to erect suitable buildings and furnish satisfactory equipment of laboratories, libraries, gymnasias, etc. The amount spent in salaries for teachers was largely increased, for not only were more teachers employed, but ambitious schools sought to secure the best, and were prepared to pay accordingly. It is true that at the present time there is a disposition to lower the salaries of teachers, particularly those in charge of the junior forms. This arises from the keen competition on the part of graduates of the training school to secure situations by means of which they may become fully qualified teachers.

In one respect the period beginning about 1876, and ending about 1886, is the best in the history of our Secondary Schools. The work done then, while not so extensive as that undertaken to-day, was done more thoroughly. This is particularly true of mathematics and mathematical physics. Our best schools had at that time large classes of students in these subjects, and the standard of excellence was unusually high. It is true experimental physics received comparatively little attention compared with that given to-day in our well-equipped laboratories. But the loss sustained by not having physical apparatus was much more than compensated by the exactitude and clearness of the knowledge acquired through a mastery of the elementary mathematics. Students, too, during this period frequently took the first year honor course of the university in mathematics, classics and moderns at our Collegiate Institutes, with excellent results. These students were better trained than those at the universities, and the teachers in the Collegiate Institutes were stimulated to greater exertions by the fact that higher work was placed in their hands. Since the curriculum of our Secondary Schools has been limited to honor matriculation, or its supposed equivalent, the pass work of the first year at the university, there has been a perceptible loss in the educational efficiency of both Collegiate Institutes and Universities.

On the other hand, it must be recognized that during the last ten or fifteen years there has been a marked improvement in the teaching of history, literature and the modern languages. For



this we must, I believe, give considerable credit to the present High School inspectors, Messrs. Seath and Hodgson. If the influence of such a man as Dr. McLellan tended to raise the mathematical status of our Secondary Schools, it is equally certain that the influence of the present inspectors has tended to raise the standard of English and modern languages. Unfortunately, this has been accomplished at the expense of mathematical studies, for while the standard, as shown by the examination papers, has not in some subjects retrograded, the actual mathematical knowledge and power of our pupils has greatly diminished. Every mathematical teacher of long experience realizes this fact.

The theory on which our educational system is based is, that it is a continuous chain, or ladder, reaching from the lowest grade of the Public School to the Provincial University. A child beginning with the Kindergarten may pass through all the stages of Public School education to the High School or Collegiate Institute, and from thence by a gradual transition to the University. The State, aided by the municipality, thus provides the means of a liberal education with little cost to the ambitious student. But this theory, while ever present before the mind of Dr. Ryerson, could not be realized in its completeness in his day. It remained for his successors to work out and develop his comprehensive ideas. In 1876 the venerable Chief Superintendent retired, and our educational machinery was in consequence modified. Instead of a Chief Superintendent, aided by a Council of Public Instruction, we introduced a Minister of Education, responsible for his department to Parliament, just as every other Cabinet Minister is responsible. The Hon. Adam Crooks was our first Minister of Education, and during his administration secondary education received much attention and made rapid progress. He in turn was succeeded by the Hon. G. W. Ross, the late incumbent. The most noteworthy feature of his administration was the successful effort to bring about a simplification of the course of study in our Secondary Schools, and a greater uniformity in the examinations for entrance to the professions and to the Universities. Not many years ago each profession had its own separate matriculation course and examination. Law, medicine, dentistry, presented their own entrance examinations, regardless of the matriculation examinations of the universities. Each university, too, had its own matriculation course and examination. The courses of study for the different grades of teachers' certificates did not correspond with

that for junior or senior matriculation, and consequently such certificates counted for nothing to those anxious to enter on a university career. On the other hand, a university matriculant could not, by virtue of passing the matriculation examination, qualify for a teacher's certificate. Now all this is changed. By an arrangement between the Education Department and the different universities, a joint Examining Board has been appointed, and we have secured the great boon of a uniform matriculation examination, which is accepted by the different professions of law, medicine, dentistry, etc. A still more radical step was taken recently when the course of study for teachers' certificates and matriculation into the universities were practically unified. This was accomplished by raising the matriculation standard in some subjects such as mathematics, physics and chemistry, and by introducing into the course of study for the higher grades of certificates, Latin and one modern language. One result of the change was that candidates for certificates can at the same time prepare for matriculation into the universities. This had the effect of greatly increasing the attendance at these institutions; in fact, this change was supposed to complete the chain of our educational system. This unification of courses of study, and the greater uniformity introduced into our examinations, has aided our Secondary Schools materially in carrying on their work. The time wasted formerly in preparing candidates for many different examinations can now be utilized to good advantage in giving greater attention to branches of study formerly neglected. It is questionable, however, whether the results of the new regulations have been wholly good. The universities have undoubtedly gained by introducing Latin and one modern language into the course of study for teachers' certificates, but it is to many quite apparent that the change is likely to prove highly detrimental to Public School education. The time now devoted by candidates for certificates to Latin, French and German, is largely wasted. A smattering of knowledge in these languages is obtained at a great expenditure of time, while the much more essential subjects of mathematics, English and history are necessarily neglected. Our Public School teachers are going out from our Secondary Schools inadequately equipped in the essentials for Public School work, while our classes are thronged with pupils endeavoring to master the elements of Latin, French and German. Still another evil of no small importance has developed itself as the result of our recent

legislation. Our Secondary Schools, up to a certain point, undertake to provide a good English education to those preparing for ordinary avocations of life. No child is compelled to take Latin, Greek, French or German in the lower forms of our High Schools. His whole attention may be given to English, mathematics, elementary science, and subjects having a direct bearing on commercial life. This is in accordance with our ideal of a High School, that it should prepare our youth for the duties of ordinary citizenship, as well as for the teaching and other professions. But, while the theory is unobjectionable, its practical working out cannot be said to be free from evil results. For instance, a boy enters one of our Secondary Schools without any definite ideas of a future career. The head-master realizes that unless Latin is begun immediately the pupil will give a great deal of trouble later on in his course, should he decide upon entering the university, or one of the learned professions. Should such a decision be reached his lack of linguistic knowledge would render it necessary to organize special classes in Latin, or French or German, as the case may be, to meet the special need of a few pupils. This the teacher avoids, as far as in his power, by compelling or inducing as many as possible of the entrance candidates to begin the study of Latin, and later on, of French and German. As by far the greater number of these pupils never go beyond the lower forms of our High Schools, the time given to Latin is so much time wasted. The few years, two or three at the most, which the pupil spends in the High School, should be devoted entirely to the acquisition of a good knowledge of English, history, arithmetic and commercial subjects, instead of being thrown away on the elements of Latin grammar. In fact, we are in some degree reproducing the evils so graphically described by Professor Young in his famous report of 1866. It would be, of course, very unjust to say that our High Schools are to anything like the same extent inefficient as they were at that date; but it is true that we are now reproducing the evil of that time, in practically forcing into Latin young boys and girls whose time should be spent in obtaining a more thorough knowledge of English and mathematics. This defect in our system gave rise to various suggestions. One remedy proposed was to revert back to the old practice of making a clear distinction between the qualifications required in order to obtain a teacher's certificate and those required for matriculation in our universities, a suggestion but recently carried out. It would not be a matter

of much difficulty to raise the standard required for admission into our High Schools, and thus raise the standard of English and mathematics in the High Schools themselves. Our Public Schools, too, teachers and pupils alike, would benefit by having a higher standard of admission, provided the qualifications of the Public School teachers in English and mathematics were raised. Against this proposal we find arrayed those interested in securing a large attendance at the universities. Unless pupils begin the study of languages at an early age, it is urged, there is little hope of them becoming good linguists. So it has been suggested that the division of our Secondary Schools into two classes, classical schools and English schools, should take place. The former, few in number, would be specially devoted to preparing candidates for entrance into the professions and for matriculation. The latter would give their attention to furnishing a good English education and to training candidates for teachers' certificates. This proposal has not as yet found many supporters. Local interests and jealousies are against it. Every man who wished to give his child a profession or university career, finds it convenient to have at his own door a High School where Latin, Greek, French and German are taught. He prefers to support a small High School in his own locality rather than send his son or daughter a few miles away from home to attend a Collegiate Institute. Besides it is quite obvious that such a division as is proposed would destroy that unity and uniformity in courses of study and examinations which now exist. This, as I take it, is the chief difficulty we experience at the present time in the working of our system of secondary education.

Let me now, in concluding, call attention to some of the results of the wide extension of our Secondary Schools. As stated before, the last twenty-five years has witnessed a marvellous development, not so much in the number of our Secondary Schools as in the attendance, municipal aid given, class of teachers engaged, equipment, buildings and play-grounds, and widening of course of study. What effects have been produced by this development? Have our Public Schools gained or lost ground during this period? Has there been a corresponding increase in the intelligence and civic morality of the community? To these questions different answers will be given by different people. To me it seems apparent that the Public Schools are not less efficient than they were a quarter of a century ago. While the desire to enter a High School does



in some cases injure the efficiency of a Public School, the general effect, I believe, is to stimulate them to better—to more thorough work. It is still more obvious that the general intelligence of the community has been increased, although it is to be regretted that so few of the children in our schools ever get beyond the mere rudiments of an ordinary English education.

Another effect of this extension of a means of obtaining a higher education at small cost has been a deplorable overcrowding of the so-called learned professions. Law and medicine, in spite of the barriers erected by high fees and lengthened courses of study, are now full to overflowing. If this is the case in professions where artificial hindrances are created by legislation, what shall be said about the teaching profession? In spite of denials to the contrary, I have no hesitation in saying that the eager rush into this profession is so great as to demoralize teachers' salaries in the Public Schools of large sections of the Province. Teachers holding the highest grades of Public School certificates can now be engaged (or hired?) at wages little better than that given to corporation laborers. The profession is becoming degraded by the wholesale introduction into its ranks of young men and women prepared to teach for the most petty remuneration. This, of course, is the natural outcome of the economic law of supply and demand. An education procured at small cost cannot expect to bring large returns. It may be noted that one result of this enormous influx into the ranks of the teaching profession has been the abolition of the lowest grade of certificate—the primary. Whether the remedy will meet the evil, time will tell.

One other phase of our system of secondary education must be noted before I close. Examinations, as already explained, have now reached a remarkable degree of uniformity. Every certificate is the result of an examination conducted by the Education Department. There the papers are prepared, and there the answers are read by a small army of examiners selected from the teachers themselves. Examinations are looked upon as one of the most important agencies in carrying out the educational programme of our High Schools. Examinations meet the candidate for admission, for promotion, for different grades of certificates, and for admission to the Universities. You may secure a certificate by taking the subjects required in sections, and you may matriculate in the same fashion. *Nominally* these examinations are uniform, for the same papers go to every part of the Province. *Really* they are not



uniform. In the first place, the oscillations from being easy to very difficult are notoriously frequent. One year we have an extremely difficult Algebra paper. An outcry follows, the regulation percentage on that paper is lessened, or the paper is cancelled. The next year the pendulum swings in the other direction, and everybody complains of how the standard is being lowered. And so the work goes on, now one subject, then another furnishing the objectionable paper. The Education Department takes many precautions to prevent these constantly recurring mistakes, but examiners are fallible, and not being engaged in High School teaching they lose touch with the schools and the work there carried on. In the second place, these examinations are not uniform, because those who read the answers, "sub-examiners" as they are called, are of all degrees of efficiency. Some are supposed to be lenient, others are naturally severe, while others are incompetent through lack of knowledge and experience. Hence the most startling results. Within a certain range the chances of a badly prepared candidate are as good as those of one thoroughly well informed. To teacher and pupil the whole affair partakes a good deal of the nature of a lottery.

Another feature of the examination system is so decidedly objectionable that a brief reference must be made to it. These examinations take place once a year in the month of July—that is the hottest month of our year. For four or five weeks prior to the examination, during the warm month of June, thousands of boys and girls, ranging from fifteen to eighteen and nineteen years of age, are going through a hard process of reading and "cram." The teachers are anxious, for they know that praise or blame will follow the success or failure of their pupils. They use every legitimate means to incite the candidates to effort and diligence. The candidates themselves are anxious as the time approaches, and every hour is felt to be of importance. Sleep and rest are denied themselves in the hope that hard study may triumph over mental weakness or incapacity. What follows? The candidates enter the examination hall fatigued and worn out, physically and mentally, to undergo the torture of a one or two weeks' struggle with conundrums evolved during the hours of leisure of the examiner. Is it any wonder that the examination leaves mental and physical wrecks behind it? Wrecks, too, among the more sensitive and gifted of the pupils; wrecks, in particular, among the girls and young women, whose ambition to excel far exceeds their physical

strength. Why such sacrifices should thus annually be offered up to the examination system is a wonder to any sane educator or parent. No good reason exists why these examinations could not be held earlier in the year, before the extreme heat of our Canadian summer begins. But the desire of many ignorant people that teachers' holidays should be kept within the smallest limits is sufficient justification for the continuance of the present cruel and senseless practice.

This paper has been devoted almost exclusively to a consideration of the growth and development of the Secondary Schools under State control. It has been incidentally pointed out that these schools receive a portion of their support from the Provincial Treasury, a still larger portion from municipal taxation, and in some cases, a portion from fees paid by the pupils in attendance. It has also been shown that the teachers in these schools must possess certain qualifications before being allowed to teach, these qualifications being of a non-professional and professional nature. I have endeavored, too, to trace how, from being schools requiring no entrance examination for the admission of pupils, they have become institutions where entrance and promotion depend upon Government examinations and regulations. Everything, it is seen, is under rigid State control, except the engagement of teachers and the erection and maintenance of school buildings. We have seen how inefficiency has been replaced by efficiency, and how public apathy has been changed to public interest and generosity. The District School of the earlier years of this century has developed into the High School, or Collegiate Institute, justly prized and appreciated by the community, as no longer a school for the classes, but the special friend of the masses. But a description of our Secondary system would be incomplete were no mention made of those schools wholly or partly independent of the State, which flourish throughout Ontario. Such institutions as Upper Canada College (now in a semi-independent condition), Albert College (Belleville), Woodstock College, Bishop Ridley College (St. Catharines), Trinity (Port Hope), to say nothing of the numerous ladies' colleges and private schools in our large cities, are doing a work of their own of a very valuable character. Under such a rigid system of State control as exists in Ontario, Voluntary Schools, such as I have mentioned, have a sphere of influence and usefulness which the State schools cannot reach. Most of these schools are denominational in their character, and such receive

denominational sympathy and support. Others, however, have to depend entirely upon the fact that they supply an educational want in the community. Their efficiency, from the purely intellectual and scholastic standpoint, is perhaps not quite up to the standard of our best High Schools and Collegiate Institutes, but what they lack in that respect is frequently atoned for by the amount of attention given to physical, social and artistic culture. One thing seems certain, and that is, that the advancement in our High Schools and Collegiate Institutes has had a stimulating effect upon these Voluntary Schools. To a very large extent the standard of the Collegiate Institute is becoming their standard. Pupils from these institutions prepare for the same examinations, and their success is becoming more marked year by year.

Perhaps I have dwelt too long upon the early history of Grammar Schools, but the object of this paper is to show that our system of Secondary education is a development, in which we must notice periods of advance and retrogression, the net result of which is the long list of splendidly equipped institutions, which now add lustre to what we consider the Premier Province of the Dominion.

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## MODERN LANGUAGE SECTION.

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THE POEMS OF ERIC MACKAY.

F. F. MACPHERSON, B.A., HAMILTON.

Early in 1885 there appeared an anonymous volume of poems, beautifully bound and illustrated. The contents proved that the author was a poet and not a mere versifier, and the natural query was, Who was the violinist who thus published his *love letters* to the gaze of a curious world? The only poet whose known work showed the qualities found in this new volume was Swinburne, and the authorship was accordingly attributed to him. "But one day a simple statement appeared in the *New York Independent* that the author was simply a gentleman of good position, the descendant of a distinguished and very ancient English family, Eric Mackay, known among his personal friends and intimates as a man of brilliant and extensive learning, whose frequent and long residences abroad have made him somewhat a foreigner, though by birth an Englishman."

My attention was first drawn to the poems by a quotation from the *Love Letter of a Violinist* in the "Romance of Two Worlds," by Marie Corelli, Eric Mackay's step-sister, to whom the volume is dedicated.

The Love Letters are composed each of twenty stanzas of six iambic pentameter lines, and the rhythm and rhyme are both remarkably perfect. I do not know any of the facts of the author's life which might explain the motive of the poems, but they seem to be the story of one who has lost the object of his affections through poverty and his devotion to his art as violinist. There is some bitterness revealed at first, but it is gradually overcome by the consolation he derives from his beloved Amati, and he rises at last to an expression of the highest reverence for woman. Although the subject seems to imply an outpouring of the strongest emotion, yet the restraint shown throughout the

whole series is remarkable, and this combination of strong feeling and firm self-control attracts the sympathy of the reader from the first.

In this volume there are many shorter poems, some of which are very fine. It is seldom that one finds a poet with such power of musical expression, and Eric Mackay ranks in this respect with Swinburne and the best English masters.

I append a few specimens of his work to give a fair idea of the book.

LETTER I.—Stanzas 1, 2, 9.

1. Teach me to love thee as a man, in prayer,  
     May love the picture of a sainted nun,  
     And I will woo thee, when the day is done,  
     With tears and vows, and fealty past compare,  
     And seek the sunlight in thy golden hair,  
     And kiss thy hand to claim thy benison.
2. I shall not need to gaze upon the skies,  
     Or mark the message of the morning breeze,  
     Or heed the notes of birds among the trees,  
     If, taught by thee to yearn for Paradise,  
     I may confront thee with adoring eyes  
     And do thee homage on my bended knees.
9. I thought a poor musician might aspire ;  
     I thought he might obtain from thee a look,  
     As Dian's self will smile upon a brook  
     And make it glad, though deaf to its desire,  
     And tinge its ripples with a tender fire,  
     And make it thankful in its lonely nook.

LETTER III.—Stanzas 4, 5, 6, 13, 14, 15, 16.

4. I rose in haste. I seiz'd, as in a trance,  
     My violin, the friend I love the best  
     (After thyself, sweet soul !) and wildly press'd  
     And firmly drew it, with a master's glance,  
     Straight to my heart ! The sunbeams seem'd to dance  
     Athwart the strings, to rob me of my rest.
5. For then a living thing it did appear,  
     And every chord had sympathies for me ;  
     And something like a lover's lowly plea  
     Did shake its frame, and something like a tear  
     Fell on my cheek, to mind me of the year  
     When first we met, we two, beside the sea.



6. I stood erect, I proudly lifted up  
 The Sword of Song, the bow that trembled now,  
 As if for joy, my grief to disallow.  
 Are there not some who, in the choicest cup,  
 Imbibe despair, and famish as they sup,  
 Sear'd by a solace that was like a vow ?
13. I pray'd my prayer. I wove into my song  
 Fervour, and joy, and mystery, and the bleak,  
 The wan despair that words can never speak.  
 I pray'd as if my spirit did belong  
 To some old master who was wise and strong  
 Because he lov'd, and suffer'd, and was weak.
14. I curb'd the notes, convulsive, to a sigh,  
 And, when they falter'd most, I made them leap  
 Fierce from my bow, as from a summer sleep  
 A young she-devil. I was fired thereby  
 To bolder efforts, and a muffled cry  
 Came from the strings, as if a saint did weep.
15. I changed the theme. I dallied with the bow  
 Just time enough to fit it to a mesh  
 Of merry notes, and drew it back afresh  
 To talk of truth and constancy and woe,  
 And life, and love, and madness, and the glow  
 Of mine own soul which burns into my flesh.
16. It was the Lord of music, it was he  
 Who seiz'd my hand. He forced me, as I play'd,  
 To think of that ill-fated fairy-glade  
 Where once we stroll'd at night ; and wild and free  
 My notes did ring ; and quickly unto me  
 There came the joy that maketh us afraid.

## THE WAKING OF THE LARK.

## I.

O bonnie bird, that in the brake, exultant, dost prepare thee—  
 As poets do whose thoughts are true, for wings that will upbear thee —  
 Oh ! tell me, tell me, bonnie bird,  
 Canst thou not pipe of hope deferred ?  
 Or canst thou sing of naught but spring among the golden meadows ?

## II.

Methinks a bard (and thou art one) should suit his song to sorrow,  
 And tell of pain, as well as gain, that waits us on the morrow ;  
 But thou art not a prophet, thou,  
 If naught but joy can touch thee now ;  
 If, in thy heart, thou hast no vow that speaks of Nature's anguish.

## III.

Oh ! I have held my sorrows dear, and felt, tho' poor and slighted,  
The songs we love are those we hear when love is unrequited.

But thou art still the slave of dawn,  
And canst not sing till night be gone,  
Till o'er the pathway of the fawn the sunbeams shine and quiver.

## IV.

Thou art the minion of the sun that rises in his splendour,  
And canst not spare for Dian fair the songs that should attend her.

The moon, so sad and silver-pale,  
Is mistress of the nightingale ;  
And thou wilt sing on hill and dale no ditties in the darkness.

## V.

For Queen and King thou wilt not spare one note of thine outpouring ;  
Thou art as free as breezes be on Nature's velvet flooring.

The daisy, with its hood undone,  
The grass, the sunlight, and the sun—  
These are the joys, thou holy one, that pay thee for thy singing.

## VI.

Oh, hush ! Oh, hush ! how wild a gush of rapture in the distance,—  
A roll of rhymes, a toll of chimes, a cry for love's assistance ;

A sound that wells from happy throats,  
A flood of song when beauty floats,  
And where our thoughts, like golden boats, do seem to cross a river.

## VII.

This is the advent of the lark—the priest in grey apparel—  
Who doth prepare to trill in air his sinless summer carol ;

This is the prelude to the lay  
The birds did sing in Cæsar's day,  
And will again, for aye and aye, in praise of God's creation.

## VIII.

O dainty thing, on wonder's wing, by life and love elated,  
Oh ! sing aloud from cloud to cloud, till day be consecrated ;

Till from the gateways of the morn,  
The sun, with all his light unshorn,  
His robes of darkness round him torn, doth scale the lofty heavens !

## A RHAPSODY OF DEATH.

## I.

That phantoms fair, with radiant hair,  
 May seek at midnight hour  
 The sons of men, belov'd again,  
 And give them holy power ;  
 That souls survive the mortal hive, and sinless come and go,  
 Is true as death, the prophet saith ; and God will have it so.

## II.

For who be ye who doubt and prate ?  
 O sages ! make it clear  
 If ye be more than men of fate,  
 Or less than men of cheer ;  
 If ye be less than bird or beast ; O brothers ! make it plain  
 If ye be bankrupts at a feast, or sharers in a gain.

## III.

You say there is no future state ;  
 The clue ye fail to find.  
 The flesh is here, and bones appear  
 When graves are undermined.  
 But of the soul, in time of dole, what answer can ye frame—  
 Ye who have heard no spirit-word to guide ye to the same ?

## IV.

Ah ! facts are good, and reason's good,  
 But fancy's stronger far ;  
 In weal or woe we only know  
 We know not what we are.  
 The sunset seems a raging fire, the clouds roll back, afraid ;  
 The rainbow seems a broken lyre on which the storm has play'd.

## V.

But these, ye urge, are outward signs.  
 Such signs are not for you.  
 The sight's deceiv'd and truth bereav'd  
 By diamonds of the dew.  
 The sage's mind is more refined, his rapture more complete ;  
 He almost knows the little rose that blossoms at his feet !

## VI.

The sage can kill a thousand things,  
 And tell the names of all ;  
 And wrench away the wearied wings  
 Of eagles when they fall ;  
 And calmly trace the lily's grace, or fell the strongest tree,  
 And almost feel, if not reveal, the secrets of the sea.

## VII.

But can he set, by day or night,  
The clock-work of the skies?  
Or bring the dead man back to sight  
With soul-invested eyes?  
Can he describe the ways of life, the wondrous ways of death,  
And whence it came, and what the flame that feeds the vital breath?

## VIII.

If he could do such deeds as these,  
He might, though poor and low,  
Explain the cause of Nature's laws,  
Which none shall ever know;  
He might recall the vanish'd years by lifting of his hand,  
And bid the wind go north or south to prove what he has plann'd.

## IX.

But God is just. He burdens not  
The shoulders of the sage;  
He pities him whose sight is dim;  
He turns no second page.  
There are two pages to the book. We men have read the one;  
The other needs a spirit-look, in lands beyond the sun.

## X.

The other needs a poet's eye,  
Like that of Milton blind;  
The light of Faith which cannot die,  
Though doubts perplex the mind;  
The eye-sight of a little child; a martyr's eye in dole,  
Which sees afar the golden star that shines upon the soul!

*CONCORD AND ITS PHILOSOPHERS.*

A. STEVENSON, B.A., WOODSTOCK.

The village of Concord, in Massachusetts, has had a most remarkable history—a history in some measure representing that of the American republic as a whole, but more particularly representing the history of its own State. For, during many years, Massachusetts held the political and intellectual leadership of the Union, and at two separate periods, each of the two different forms of leadership was assumed by the people of Concord, or devolved upon them.

It was at Concord that the first shot of resistance was fired in the war of the American Revolution. This was not a rebellion against English laws and institutions, but a rebellion of freedom-loving English subjects against un-English despotism and tyranny—a rebellion, indeed, not against English people, but against an un-English king, who was making a determined effort to subvert the liberties which the very ancestors of these American revolutionaries had helped to establish by the overthrow of the Stuart dynasty. Was it to be wondered at that the descendants of the men who had quelled their native kings, should refuse to submit to the tyranny of that petty German prince, George the Third, dressed in a little brief authority, and playing such fantastic tricks before high heaven as made the angels weep!

Here at Concord, on April the 19th, 1775, the Old World met the New in desperate struggle, and went down in wreck and ruin before it. A pitiful sight it was to see the veteran troops of Europe fleeing for their lives before the undisciplined villagers of Concord, and the farmers of the neighborhood. The colonials had no bands or flags or fine uniforms; many of them did not know enough Old World drill to mark time; but they could shoot straight, and they were fighting for freedom.

Concord is justly proud of her achievement that day, and the people of the village have commemorated the deeds of their brave forefathers by a monument on the battle-field, on which is inscribed 'a striking stanza from the memorial poem, written by Ralph Waldo Emerson:

“By the rude bridge that arched the flood,  
Their flag to April's breeze unfurled,  
Here once the embattled farmers stood  
And fired the shot heard round the world.”



There are other and older memorials of this portentous fight still to be seen in Concord. One can walk in peaceful musing along the very road over which on that terrible day the British Grenadiers fled from the fatal bridge. Here are the stone fences, now grey, weather-worn and ringed with lichens, the same fences from behind which went forth the rifle-flash and the crack of doom. In the old burial-ground on yonder hill, marked by strange, ancient tombstones of black slate, are the sacred graves of those who fought for freedom. And down on the roadside, at the end of the bridge, and close to the spot where they fell, are the graves of British soldiers who died for a fault not their own, and whose fall shook King George's throne.

Such were the men of Concord in the olden time; such glories did they win. This surely were distinction enough for any little town; this alone would give it lasting fame. But to many the chief renown of Concord is not due to a victory won by men of the rifle and powder-horn, but to victories won in later days by her more eminent sons on spiritual battle-fields. And still it was the old battle-cry of freedom, transmitted from sire to son, only now it had a finer and a higher tone. For Emerson, Thoreau, Alcott and Lowell, like the great apostles of old, warred not against mere flesh and blood, but against the principalities and powers of prejudice and ignorance; against the rulers of the political and moral darkness of this world, and against spiritual wickedness in high places. With a courage even sturdier than that of those heroes of the earlier day, these noble men of our own times fought the battle of freedom with voice and pen.

It was not against the tyranny of Britain they fought, but against the tyranny of Church and State, of College and School, of society and public opinion, and even against the tyranny of *one's own* private opinion if it were based on folly or ignorance.

Emerson raised the battle-cry. "What is a man born for," said he, "but to be a Re-former, a Re-maker of what man has made; a renouncer of lies; a restorer of truth and good?" From such a man as this we seem ourselves to know what to expect, and we are not disappointed. The things which most people thought settled, their beliefs and opinions, their conventions of conduct and social living, their theories of politics, their canons of art—most of these are described by Emerson as an idle echo from the dead, a tale that has been told. And he says so, too, with such sweet reasonableness, that any one who will take the trouble to think at

all, cannot be offended at him ; some of us, indeed, need but small persuasion to see that he is right. For he was not merely a destroyer of old idols and temples. He built new shrines for a purer worship ; he preached a finer faith, a higher practice. He declared that free men in a new country, in a new world, ought not to follow blindly after the Old World in politics and creeds and social customs, nor in ideals and methods in literature and art. He stood for freedom and independence in all things. In particular he endeavored to impress upon his countrymen the truth that personal greatness depends on what a man *is*, not on the abundance of the things which he possesses, nor on the position he may happen to hold, and that national greatness does not consist in extent of territory, nor in number of factories and warehouses and banks, nor in immensity of wealth, nor millions of population, nor in size of armies and navies. No, not in any of these things, but in the kind of men the country turns out.

Other distinguished residents of Concord, for longer or shorter periods, were James Russell Lowell, Nathaniel Hawthorne, Margaret Fuller, Bronson Alcott, and his better known daughter, Louisa M. Alcott. These all fought the good fight, wielding mighty arms, in the never-ending warfare of truth and righteousness against the powers of darkness and evil.

But Concord's greatest son was Henry David Thoreau, a man who has hitherto been much less widely known than some of the others just mentioned, but whose genuine greatness will be better appreciated in the times to come. He was born in the village, and so closely is he identified with it, and so much credit has been given it, that of him it is said that "Concord is his monument."

He graduated from Harvard University, and taught school in Concord until the trustees found fault with him, because he did not whip his boys into order, but tried to govern them by moral suasion only. Then he went into land surveying. He also wrote and lectured on literary, moral, and social questions.

It has sometimes been said that Thoreau was the disciple of Emerson. This is, no doubt, to some extent true. But it is equally true that the benefit was mutual, and that Emerson gained a stronger moral fibre and a broader outlook upon man and nature through his intercourse with Thoreau. In any case Thoreau's discipleship in relation to Emerson was in such wise that many readers are being led to say that here, indeed, the disciple was greater than his master. While Thoreau sometimes lacked Emer-

son's grace in expression, he was a more original and independent thinker, and had a wider range of sympathies and aptitudes.

Thoreau was an ardent advocate of the abolition of slavery at a time when it was not only unpopular, but positively dangerous to take such a stand. When John Brown had been seized at Harper's Ferry, and was being tried for his life, in the interests of the slave-holders, and when there was not another man in all the United States who openly dared to espouse his cause, Thoreau lectured in his favor in Tremont Temple in Boston before an immense audience, whom he moved to indignation at the spectacle of the national government being dominated, and the Constitution of the United States being trampled under foot, by the slave-owners of the South. And after Brown had been executed, and his soul was marching on, Thoreau lectured again on what he declared to be the duty of disobedience to the laws of the State. He asserted that the Government, and the laws it made, represented, on the whole, only the average, and not at all the highest morality of the country, and that the best men of every country should lead the law-makers, and not follow them. He boldly declared that the United States Government, since it permitted slavery, was in partnership with the owners in holding the slaves, and that any man who voted for the Government, or acknowledged its authority, or helped to support it in any way, was also a partner in slave-holding, and guilty of gross moral iniquity.

He, therefore, renounced his allegiance, and, as he said, seceded from the United States. When told that he should, therefore, leave the country, he maintained that he had as much right to live there as anyone else, and that the Creator had not deeded North America to the United States Government. He had as little faith in the divine right of governments upheld by popular majorities as he had in the divine right of kings, and he held that one man in the right was a majority against the whole world in the wrong. He repudiated the claim that he owed safety and protection to the national government, and he said that the only violence ever done him was by an official of that government, acting in the name of the Government. This was under the following circumstances :

He had refused to pay the poll-tax levied at that time by the Federal Government, on the ground that he would thus be supporting the Government and identifying himself with it in maintaining slavery. For this refusal he was thrown into jail. He remained, however, only one night there, for, in spite of his protests, his friends paid the tax. But he was never molested in that way again.

While in jail his friend Emerson came to see him, and asked him why he was there. He retorted, "Why are you not here?" and continued somewhat fiercely to the effect that if it were not for cowardice every good man in the country would be in jail, too, for they all thought as he did, but had not the courage to say so. He said that jail was the most honorable place for a man to be in, when he was put there for breaking bad laws.

So it will be seen that Concord's noblest sons fought for freedom against their own government, no less than against the British, and who will say that the later fight was not even more to her glory and honor than the earlier one?

In regard to every-day matters, Thoreau, like Alcott and Emerson, advocated, and carried out, the principles of plain living and high thinking. He declared for extreme simplicity in dwelling and furnishings, in dress and in diet. He held that it was in order to satisfy extravagant desires for such things that men worked so hard and so long to earn what they called a living that they had not any time left in which to truly live—to live the life of the spirit as distinguished from the mere bodily and worldly life. He said that we are altogether too much the slaves of other people's opinions, and, worse than that, we are often the slaves of what after all is merely our own opinion of what other people's opinions are.

As an experiment in simple living, he built a shanty on the shores of Walden Pond, a beautiful little lake about a mile from Concord, and there he made his home for nearly two years. As for furniture he did not need much, for, he said, he would sooner sit at ease on a pumpkin, than be uncomfortable on a velvet cushion. His house, woodshed and all, cost him just \$28.12½. His yearly expenses were: Rent of land, \$14.72; food, \$13.11; clothing, \$12.60; oil, etc., \$3.00; total, \$43.42. To offset this he had from produce sold, \$23.44; day labor, \$21.01; total, \$44.45: leaving a cash balance of \$1.03.

To reach this result he had found it necessary to devote to physical labor only about as much time as an ordinary laborer spends at work in six weeks, and so he had left all the rest of the year for the high thinking which he loved so well. His plain living was on the potatoes and beans he grew, bread made by himself of rye flour and cornmeal, rice, molasses, salt and a very little pork. His drink was water. His total outlay for food was twenty-seven cents weekly. At this cheap rate he lived a life of

health and leisure and independence. That his leisure was really spent in high thinking, and not in mere idleness, any one will testify who has read his marvellous book, entitled "Walden," which describes what he did, and what he thought, and what he felt in his little home by the quiet lake.

But now all Concord's latter-day fighters have ceased from their warfare. They have fought their last fight, and sleep their last sleep—Emerson, the Alcotts and Thoreau lying side by side with the gentle Hawthorne on the summit of the little pine-clad hill in the cemetery of Concord, and Lowell a few miles away in Mount Auburn, the great city of the dead that lies on the outskirts of Boston. But they being dead yet speak, and their words go forth into all the earth. Even their graves have voices, teaching once more to the pilgrims who wander there striking lessons of truth and simplicity. For no stately monuments mark these tombs, only plain little slabs of slate or marble for all—except a rough granite boulder for Emerson.

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*THE RELATION OF THE BIBLE TO ENGLISH LITERATURE.*

J. E. WETHERELL, B.A., STRATHROY.

To say that no other book has had so great an influence on English literature as the Bible is no daring statement; it would be strange, indeed, if it were otherwise. The Bible is the book which is studied by little children at their mothers' knees; it is read and expounded every Sunday from myriads of pulpits in all lands; it arouses and directs and feeds the religious emotion of countless millions of our race. Because it is the text-book of the Christian religion its influence on our literature is, therefore, immense. Then it is no common text-book. Regarded simply as a literary work it has power and grace enough to influence the thought and style of any writer who has a message of his own to tell on kindred subjects. Further, the Bible has always been the handmaid of the pictorial art, or rather the pictorial art has been the handmaid of the Bible, and wherever that art has affected English poetry the influence of the Bible is also felt. The brilliant illuminations of the old missals and psalters, wrought with infinite labor and consummate taste, the "storied windows richly dight" with Bible scenes in the stately cathedrals of Europe, the angels and madonnas and other biblical subjects, fashioned through many centuries by Raphael and Titian and Michelangelo, and a long line of famous painters, all these have had their effect on literary artists who also live and move among things of beauty. Music also has been another handmaid of the Bible. In cathedrals and in chapels, chants and anthems and psalms, reflecting biblical sentiments and cast in biblical mould, have thrilled the hearts of innumerable worshippers, and "cast before the eye of the devout a veil of ecstasy." The influence of religious music has perhaps reached its highest effects in the sacred oratorios of Handel and Mendelssohn. Who will estimate, then, how much influence music has had in turning the attention of our great writers towards the Bible? The Bible, accordingly, for all these weighty reasons, has had a paramount influence on nearly all the great writers of English literature. It is my business in this brief paper to give some account of that influence.

My plan is a simple one. I have selected a score or more of the great authors of our literature, and have indicated briefly to what extent each has come under the sway of the Bible. With the time at my disposal I can give only a paragraph or two to each author. I fear that this mode of treatment and my limitations as to time will tend to make my paper as uninteresting as Homer's catalogue of ships.

In dealing with individual authors three points of view naturally suggest themselves—(1) How has the Bible influenced the author's views of life,—his thoughts and his feelings? (2) How has it influenced him in his choice of subjects? (3) How has it influenced his style?

The first point of view presents a task too delicate and difficult to be attempted here. The Bible contains the teachings of Christianity, which has surrounded all our authors with a moral atmosphere that has affected them more or less according to varying circumstances, so that it would be hard to say just what any particular author would have been without this environment. The other two points of view have a more definite outlook and all my observations will have reference to them mainly. (1) How has the Bible influenced the author in his choice of subjects? (2) How has the Bible influenced his style?

We must begin with the "Father of English Poetry." Chaucer retired to Woodstock to write his *Canterbury Tales* only seven years after Wycliffe had given England the first English version of the Bible. No wonder, then, that Chaucer was much influenced by the Book.

In the Prologue there are several biblical allusions. The "Monk's Tale," which bewails the tragic fate of many in high degree, recounts the stories of Adam, Samson, Nebuchadnezzar, Belshazzar. The "Persones Tale" goes to the Bible for all its material; "The Prophet Jeremie sayth in this wise;" "For Job sayth;" "And God sayth in the Apocalypse;" "As Saint Paule sayth;" "As sayth the Prophet David;" "Of this mater sayth Moyses," etc. "It is written," runs with many variations through this last and longest and driest of the famous Tales.

During the 150 years following the age of Chaucer—a period in which the light of English poetry burned dim—there are two things to be noticed in connection with the relation of the Bible to our literature. Printing was introduced into England, and the bibles of Tyndale, Coverdale, and Cranmer were given to the

nation. During that interval also, especially in the early part of it, was gradually developing the English drama out of the Miracle Plays or Mysteries, the subjects of which were the most striking stories and scenes of the Bible.

We come now to Spenser. Chivalry has been called the flower of Christianity, so we should expect to find much of the Bible in Spenser. But it is more in thought and sentiment than in style or diction that the Bible affects Spenser. In "The Faerie Queene" biblical allusion is rare, indeed, while almost every myth of classical mythology and Arthurian legend appears. The ethical purpose of "The Faerie Queene," by which one Knight represents Holiness, another Temperance, another Chastity, of course, reflects the Bible.

And now for Shakespeare. The Bible appears to have influenced him but little. Not one of his dramas or poems has to do with biblical subjects. One finds an occasional reference or quotation from the Book here and there. In "Macbeth," the school play of the present year, I find only five biblical allusions. There is one play of Shakespeare in which we might expect frequent allusion to the Bible, and we do find in "The Merchant of Venice" no fewer than thirteen separate references, some of considerable length, notably the passage beginning, "When Jacob grazed his uncle Laban's sheep." When his art requires it, therefore, Shakespeare knows his Bible, and can use it effectively, but his genius turned him rather to history, mythology, and romance.

From the great master of the Drama let us pass to the great master of the Epic. The blood and breath of Milton were of the Bible. The opening lines of "Paradise Lost" are a sufficient indication of the debt Milton owed to the Holy Word. [Quotation omitted in condensing paper.]

Surely this is a wonderful mosaic of biblical materials, and there are many passages like it throughout the long poem. One is amazed at blind Milton's phenomenal command of the Scriptures. Take, for example, that wonderful passage in the first book of "Paradise Lost" beginning, "First Moloch, horrid King, besmeared with blood," in which the poet takes you through the long and tortuous career of Israelitish idolatries, with name upon name of man and of place, and he never stumbles once, however rough and obscure the road. "Paradise Regained" is even more intimately biblical than "Paradise Lost." Besides the great epic, Milton wrote, on scriptural subjects, "Samson Agonistes" and the "Nativity." He has left us, too, metrical versions of nineteen of the Psalms.

While Milton was at work on "Paradise Lost," another Puritan, shut up in Bedford Jail, with a Bible and "Foxe's Book of Martyrs," was writing of the perilous travels of Christian. The great allegory of Bunyan, as everyone knows, owes its existence, its framework, its style, largely to the English Bible.

Only three years after the publication of "The Pilgrim's Progress" there was published in England another allegory of a very different kind—a very terrible allegory, full of satirical portraits. In "Absalom and Achitophel" Old Testament names are used to represent the leading men of the English Court. No other writer has put the Bible to such amazing use. Where in our literature will you find such fierce invective and pitiless ridicule? "The Hind and the Panther" also, written after Dryden became a Roman Catholic, bristles with references to the Bible. Indeed, Dryden's thorough knowledge of the Scriptures is evidenced in all his productions. His mother, the daughter of an English Church rector, had trained him well.

The son of an English Church rector was also our next author. Joseph Addison, who at one time planned a defence of the Christian religion, who has given us a poetical version of many of the psalms, whose last words were, "See how a Christian can die," shows, in all the wide range of his varied work, a most intimate knowledge of Holy Writ.

And now let me test your familiarity with that poet who was so great in his own century and who is so little in ours. Here are some biblical gems from one of his masterpieces :

"A wild where weeds and flowers promiscuous shoot,  
Or garden tempting with forbidden fruit."

"Who sees with equal eye, as God of all,  
A hero perish, or a sparrow fall."

"Pours fierce ambition in a Caesar's mind,  
Or turns young Ammon loose to scourge mankind."

[Other quotations omitted in condensing.]

These are all from "An Essay on Man." It was the Prince of the Artificial School who wrote also "Messiah, a Sacred Eclogue," and "The Dying Christian to His Soul." This last has a high place in Christian hymnology.

We come now to the author of "The Elegy." Although Gray was the most learned poet of his age, he neglected almost entirely

two branches of knowledge, mathematics and the Bible. I challenge anyone to find five allusions to the Bible in all Gray's poetry. In "The Elegy," where one might expect some reference to the Scriptures, there is not a single biblical touch, except perhaps a hint in the last line: "The bosom of his father and his God." If the unlettered Muse, as the poet says, "strews many a holy text around," certainly the lettered Muse that guided Gray's pen does not. His genius and tastes turned him to Latin, to Greek, to French, to Italian, but not to things Hebrew. Indeed, the classical manner and the Hebrew manner are not akin.

The influence of the Bible on our literature, I find, goes like the tide by flow and ebb. We have now come to the lowest ebb, and it is a curious fact that the lowest ebb is synchronous with that religious torpor out of which John Wesley was just beginning to shake his lethargic countrymen.

Goldsmith was as little affected by the Bible as was Gray. The son of a clergyman, the nephew of a clergyman, the brother of a clergyman, himself destined for a clergyman, and yet his subjects and his style are severely secular. Find, if you can, a biblical reference in "The Traveller" or "The Deserted Village." But "The Vicar of Wakefield," you will say, surely sometimes quotes his Bible. Not very often. If Goldsmith, as Johnson says, "wrote like an angel," it was an angel who had little use for the oracles of God.

We turn now to our first Scotch author, Robert Burns. The attitude of Burns towards the Bible is indicated in the "Cotter's Saturday Night." He told his brother that he was led to write that poem by the thought that there was something peculiarly venerable in the phrase, "Let us worship God," used by the head of a family introducing family worship. The poet himself, after his father's death, according to Scotch custom, succeeded to the office of family priest. Here is Burns' remarkable summary of the Bible from the "Cotter's Saturday Night," "The priest-like father reads the sacred page." [Quotation omitted in condensing paper.]

There you have the great Book in a very small nutshell. If further illustration is needed of Burns' complete mastery of his Bible it may be found in those wonderful letters of his, sprinkled thickly with Scriptural phrases and quotations. And Burns could put his biblical lore to a very terrible use. How awful is "Holy Willie's Prayer!" I refrain from quoting.

We pass now to the poet who is most in all our literature under



the influence of the Bible,—our religious poet, William Cowper. His poetry is the Bible turned into verse. With him it is the Book of Books:

“ The remedy you want I freely give ;  
The Book shall teach you,—read, believe, and live ! ”

What he says in “ The Task ” of “ the legate of the skies ” is applicable to himself :

“ His theme divine,  
His office sacred, his credentials clear.  
By him, the violated law speaks out  
Its thunders, and by him, in strains as sweet  
As angels use, the gospel whispers peace.”

The way in which the language and imagery of the Bible permeates and pervades Cowper's poetry may be illustrated by this passage from “ The Task ”:

“ All flesh is grass, and all its glory fades ”—

[Quotation omitted.]

Before leaving Cowper I must merely mention the “ Olney Hymns,” sixty-eight in number, many of them lyrical expansions of Scriptural texts.

We have now reached our own century and Byron. Byron's mother was a Gordon of Aberdeen, and that is saying enough about his early training in the Bible and the catechism. His command of the Bible, when we consider his character and life, is one of the most curious problems in the ethical annals of our race. Every one of his poems abounds in biblical allusions. The influence of Scripture on his choice of subjects is surprising. “ Heaven and Earth ” is based on a passage in Genesis. “ Cain,” based on another passage in the same book, has among its *dramatis personæ* Adam, Cain, Abel, Eve, Lucifer. And it was dissolute Byron who wrote the “ Hebrew Melodies.” Some of the titles will recall them to you: “ The Harp the Monarch Minstrel Swept,” “ Oh ! weep for those that wept by Babel's stream,” “ Song of Saul before his last battle,” “ All is Vanity, saith the Preacher,” “ Vision of Belshazzar,” and, best known, “ The Destruction of Sennacherib.”

The other side of Byron we find in the wit and levity of “ Don Juan.” He travesties or otherwise degrades, without a scruple, the most solemn words of Holy Writ.

Byron's great rival in the field of romance claims attention next. Scott, in his autobiography, tells us of the “ strict discipline of the

Presbyterian Sabbath," and we may be sure he had to master his Bible. His respect for the Book is evidenced by what he told Lockhart as he neared his end. He desired Lockhart to read to him, and when asked from what book, he replied: "Need you ask? There is but one." And yet the Bible does not seem to have influenced Scott for literary purposes to any great extent—in his poetry almost not at all. Did you ever notice this curious thing? Every chapter in Scott's novels begins with a quotation, and not one of these, I think, is from the Bible; they are mostly from old plays, old ballads, and old songs. I am inclined to think that his infrequent use of the Bible is partly due to his great reverence for the Book. It was to him a book apart, not to be lightly used for secular purposes. When, however, he introduces into his novels characters like the famous group of Israelites in "Ivanhoe," he is too good an artist to eschew the Hebrew manner of speech which abounds in scriptural allusion. The Friars of this novel adduce *their* biblical quotations in Latin from the Vulgate. In another of his novels Scott is forced by his artistic sense to a liberal use of Scripture. Albert Lee, near the end of "Woodstock," says to Oliver Cromwell, "You love texts of Scripture," after Cromwell has quoted Scripture texts through many chapters.

Our next poet, he who comes the nearest to absolute perfection in describing things beautiful, owes almost nothing to the Bible. You cannot find in the poetry of John Keats a half dozen references to the Scriptures. [Further reference to Keats omitted in condensation.]

And he who wrote so beautifully of "Adonais" owes almost as little to the sacred volume. [Paragraph on Shelley omitted in condensation.]

Next in order is that great English poet who, as a young man, frequently preached in a Unitarian church, and attracted large congregations by his surpassing oratory, and who, later, on being converted to Trinitarianism, was an enthusiastic exponent of orthodox Christianity. In the poems of Coleridge we see everywhere the influence of the Bible—indirect influence for the most part. [Paragraph on Coleridge much abridged.]

And what of the English poet who began his literary career yoked in joint authorship with Coleridge? "No foreign splendors should be interwoven with what the passions naturally suggest," says Wordsworth in his theory of poetry, and to this dictum he closely adheres. In the fifteen poems of Wordsworth prescribed in

our current High School curriculum you will find, I think, not one biblical reference. The significance of this will be appreciated when I add that in the prescribed Longfellow poems there are thirty-three biblical allusions. Wordsworth was the incarnation of independence, and in his avoidance of cant, literary and religious, he flew to the other extreme. Quoting Scripture he seems to have placed in the same category as the poetic diction and other poetic mannerisms of the eighteenth century, which he so vigorously assailed. No English poet has reached higher moral elevations in his work than Wordsworth, but he has done it without drawing on the Bible for subject or for style. [This paragraph also abridged.]

We have now come to the period in English literature during which the influence of the Bible is most marked—the middle and close of the nineteenth century—the epoch of Macaulay, Carlyle, Ruskin—of Tennyson and Browning. The limitations of my paper prevent my giving due attention to this part of my subject. All these great authors were thoroughly familiar with the Scriptures, and all drew hundreds of illustrations from that rich treasury.

Macaulay, in earliest childhood, knew whole books of the Bible by heart. His famous description of the Puritans in his "Essay on Milton," will give an idea of his almost miraculous command of the Scriptures.

Carlyle's fondness for Biblical allusion will be best seen in an extempore speech delivered before the University of Edinburgh on "The Choice of Books." The oration is freighted with scriptural imagery and phrase used with powerful effect.

Ruskin tells us he could not recollect when he learned his Bible. No wonder that his Bible never forsook him and that he always knew just where to find the weapon most suited to attack the dragon of error that he was struggling with.

And now I must conclude with the glorious pair who stand on the highest peaks of this century's poetry. Henry Van Dyke, in his "Tennyson," has devoted a chapter longer than the whole of the present paper to "The Bible in Tennyson." "In this essay," he says, "I want to show how closely Tennyson has read the Bible, how well he understands it, how much he owes to it." Then in an appendix to the volume he quotes nearly three hundred direct references to the Bible in Tennyson's poetry. There is no need for me to say more here about Tennyson.

Some day someone will do for Browning what Van Dyke has done for Tennyson, and it will be found that these two great

modern apostles of spirituality run a pretty even race as to the employment of Scripture in their works. Such poems as "Rabbi Ben Ezra," "A Death in the Desert," and notably "Saul," give the reader a fair idea of Browning's indebtedness to the Bible. Indeed, how could Browning escape the influence of the Bible in Italy, the land of his desire, land of Christian paintings, Christian statuary, Christian architecture, Christian libraries and Christian priests.

Had time allowed I would have added a few words about such sceptical writers as Arnold and Clough, whose attitude towards the Bible is everywhere that of profound respect. I should also have had something to say about the Puritan school of writers in New England, whose chief was Longfellow.

But I must abruptly conclude; and I close with this remark, that I do not believe, as many do, that there are signs to-day of decadence in the use of the Bible among English authors, however deplorable may be the present neglect of the Book in home and school. The New York *Evening Post* recently said: "The greatest literary landmark of the English tongue threatens to become unknown." There is no fear of that. Indeed, it could easily be proven that our younger writers, such as Kipling, Watson, Davidson, Parker, Merriman, Barrie, Phillpotts, appreciate the literary value of the most venerable and wonderful of all English books, the English Bible.

*TEACHING THE BIBLE IN OUR HIGH SCHOOLS.*

ARTHUR W. WRIGHT, B.A., GALT.

I. It is not only desirable, it is imperative, that the citizens of this country should be well acquainted with the Scriptures.

The citizens of this country, of every country claiming to be a Christian country, and more especially of every Anglo-Saxon country, should be well acquainted with the letter and spirit of the Bible. More than any other book or literature—shall I say more than all other literatures combined?—it has to do, directly or indirectly, with our religious ideas, our morals, our laws, our rights, our liberties, our aspirations, our literature, our modes of thought, our forms of speech. No man or woman who wishes to be in touch with what is most earnest and potent and real in this progressive age can afford to remain in ignorance of the contents of this wonderful book, for here we have revealed the source and sustaining power of all our progress, and unless our youth are kept imbued with the principles taught in the Bible, the salt will lose its savor, and national corruption will be the result.

II. The present means of Biblical instruction are very inefficient.

There are incontrovertible grounds for asserting that the rising generation of citizens of the Province of Ontario are growing up in comparative ignorance of this noblest, most indispensable of all literatures, and there are not wanting many signs of an increasing disregard for the morality inculcated by the Bible. Why is this so? The present means of instruction are quite inadequate and ineffective. Parents, as a rule, are too much engrossed with other affairs, and are sadly indifferent to their first duty, the moral and religious upbringing of their children. The pulpit, with few exceptions, is a stranger to expository preaching, so useful for conveying the meaning and spirit of whole chapters or books, and for inculcating Scripture teaching in relation to the common duties of life. The young people's societies in connection with the churches, which of late years have flourished so remarkably, have done a useful work, but little of it has been in the field of serious Bible study. The Sunday School, on which the whole burden of the religious education of our youth seems to be thrown, is simply



unable to carry the load imposed upon it. The very limited amount of time allotted to the work, to say nothing of the impossibility of securing a sufficient number of good teachers, and of enforcing proper discipline in many schools, is a sufficient barrier to obtaining anything like satisfactory results. Bible literature, history, morals and theology cannot be taught with any approach to thoroughness in a go-as-you-please half hour a week. The Sunday School is not doing satisfactorily the work expected of it; it cannot do it alone; and, I venture to say, it cannot be made to do it alone.

III. The State should again undertake the duty of giving Biblical instruction.

Once upon a time Biblical instruction was regularly given in many of the public schools, then called common schools, of this province. Some of us can remember, and with gratitude, the Bible lesson in the morning, and, later in the day, the drill in history from the old Irish National Readers. In the national schools of several countries, notably Norway, Sweden, Holland and Great Britain, the Bible is a text-book. In the Protestant schools of our sister province, Quebec, both the Bible and Bible history are taught. In regard to this matter why should Ontario be obscurantist and retrograde? It should encourage by every means in its power the inculcation of Bible ethics, for a State built on any other foundation is a house resting on sand, and great will be the fall of it in some not far distant day of stress. To those who object to State aid to religion, we say that sectarian dogma need not enter into the question at all. Just as English and Canadian history can be taught without offensive allusion to current party politics, so can the Bible be taught without doing violence to denominational prejudices. As the president of this section, Mr. Stevenson, well expressed it in a letter to me, which I trust he will excuse my quoting: "The State should aid the teaching of Hebrew history and literature as well as Greek or Latin or French or German or English or Canadian literature and history. The State should aid the development of the moral faculty as much as or more than it does that of the intellectual faculty." The force of that argument is to me irresistible. And yet our schools are expending all their time and energy on a wide range of studies to the almost total exclusion of a subject more important than any of them. In our public schools we are paying a good deal of attention to the science of physical health, and neglecting the science of moral health. We

foster a spirit of patriotism, and we pay only casual and slight attention to purity and truth and honesty and charity and generosity, without which patriotism will be but a name for an unscrupulous and debasing national selfishness. Should these things be so? Should not the State step in and adopt decisive measures to remedy the evils which threaten its own existence?

IV. The teaching of the Bible in our schools is quite practicable.

But there is a lion in the way, and with the exception of a voice or two in the wilderness, our politicians, our educationists, our clergy even, either from timidity or indifference, have failed to face the fancied difficulty. Of late, however, there has seemed to be a real revival of interest and courage with respect to this question, and one now hardly runs the risk of being denounced as foolhardy or presumptuous or visionary in venturing to suggest that the teaching of the Bible in all the grades of our provincial system of education, is quite practicable. If the people, through their representatives in the ecclesiastical, educational, and political fields, unmistakably demand this reform, the supposed difficulties will be easily overcome. The only real obstacle to be surmounted is the lukewarmness toward the Bible of its nominal friends, the members and adherents of the evangelical churches. When this is got over the other hindrances will vanish like mist before the morning sun.

Let us glance at a few of the questions that may be raised, premising that the answers given, though the best that the writer has been able to arrive at, are merely expressions of individual opinion, and are intended only as suggestions.

1. What book shall be used, the whole Bible or a book of selections?

The simplest, and, on the whole, most satisfactory plan would be to have the whole Bible as a text-book in the hands of both teachers and pupils. No book of selections that would be generally and continuously acceptable can be made; though it may be admitted that a book of selections, even the one we are permitted to *read* now, would be a great deal better than nothing. Most of the purposes served by a book of selections could be attained by prescribing a syllabus of Bible studies adapted to the various grades and classes in our schools. It might stimulate the general interest if these studies were in the line of the lessons that are studied in our Sunday Schools. The whole Bible would thus be available for reference or other supplementary study, and no book

can be obtained more conveniently or more cheaply. A summary of Jewish history might be given in the readers or in a separate book.

2. How shall time be found for this study ?

There is force in the objection that our programmes of study are already overcrowded. Still changes are constantly being made, and these are not all in the direction of simplifying courses or lightening burdens. To find time we may drop less important subjects, or curtail the time allotted to them.

3. When shall it be taught ?

In the Protestant Public Schools of Montreal twenty minutes every morning are spent in this kind of instruction ; in the Board schools of London, England, the first forty minutes every day are devoted to it. In our Public and High schools could we not spare the first fifteen or twenty minutes of the school day for this very important subject ? The difficulties as regards organization would not be nearly so great as they are, for example, in providing for physical training in our secondary schools.

4. Who shall be taught ?

Bible knowledge should be as widely diffused as possible. With this end in view all the children and youth attending our educational institutions, from the kindergarten to the university, should be seriously engaged in getting it. Only those should be excused who present from parent or guardian a written declaration of conscientious objection. In the case of adult students their own declaration might be accepted.

5. Who shall teach ?

There should be a conscience clause for teachers as well as for pupils, but those taking advantage of it would be the exception and not the rule. Most teachers in our Public and High schools both could and would teach the Bible with a fair degree of efficiency. Many of them are already engaged in Sunday School work ; many others would be engaged in it did they not feel the need of the Sabbath's relief from the strain of their calling ; and all these would hail with satisfaction the opportunity to do more effective work in this line than can be done under present limitations in the Sunday School. I agree, however, with those who contend that the best work will not be done in our primary and secondary schools until the subject is given its due position in our higher halls of learning. By all means have a chair of Biblical literature in our provincial university, filled by an able man ; but it is not neces-

sary nor advisable to wait for the results of this to trickle down to our schools before attempting to do anything there. Let us do what we can wherever an opening is presented. Let us keep the ideal in view, but let us not miss the practicable.

6. How shall the Bible be taught?

Teachers should be allowed to teach the Bible as they would any other book, by question and answer, by comment and explanation, by having the pupils memorize certain passages, by drills and examinations. Most teachers have common sense and discretion enough to avoid an offensive treatment of controverted points in religion, and they would as seldom get into trouble by such treatment as they now do when referring to questions of party politics in teaching history. The Protestant denominations are by no means so sensitive about their little points of difference as they were not very many years ago, and I am sure they would be willing to hold them in abeyance in the schoolroom. One may even venture to hope that in time our Roman Catholic fellow-citizens will be found joining us in this study, just as they now are sometimes present at our devotional exercises. As questions of race are fast being merged in the unifying conception of a common Canadian nationality, so may the bigotries of creed be speedily swallowed up in a recognition of the fact that all we who acknowledge God as our Father, Christ Jesus as our elder brother, and the Bible as a revelation of the Divine will, are spiritually brethren. Is this too sanguine a hope? The signs of the times say nay.

7. Would there be examinations in this subject?

Not necessarily, but why not have them? If examinations are advisable in English history why not in Hebrew history? if good in English literature why not in Hebrew literature? There should be class examinations by the teacher, at any rate. If you wish the average pupil to acquire knowledge, he must be made to feel that he is liable to be called upon to give it out again. "Writing maketh an exact man," and written examinations are useful as a stimulus to thorough acquirement. A good deal has been said against examinations, but there are examinations and examinations. Those that encourage cram are mischievous; those that encourage rational and conscientious study are beneficial. Departmental examinations would not be an essential feature in the working out of this problem; neither need they be altogether excluded. A correspondent suggests that a statement by the Board of Trustees could be substituted for them. If this were

based on a report of the standing of the pupils by the teacher it might be accepted in lieu of an examination.

8. What modifications in the Statutes and Regulations would be necessary to effect a change?

The Confederation Act would not require amendment.

The Public Schools Act, 1896, Section 7, reads:

(1) No person shall require any pupil in any Public School to read or study in or from any religious book, or to join in any exercise of devotion or religion objected to by his or her parents or guardians.

(2) Pupils shall be allowed to receive such religious instruction as their guardians or parents may desire, according to any regulations provided for the organization, government and discipline of Public Schools.

No change would be required here, except, perhaps, to make the provisions apply to High Schools also, which seems to be omitted from *The High Schools Act, 1896*.

The Regulations of the Education Department, however, refer to both Public and High Schools, and would require amendment in a few important particulars in order to permit of such instruction as we have been advocating. They might be put in some such form as this:

97. Every Public and High School shall be opened with prayer and with a Bible lesson of fifteen or twenty minutes' duration; and shall be closed with prayer. When a teacher claims to have conscientious scruples in regard to opening or closing the school as herein prescribed, he shall notify the Trustees to that effect in writing; and it shall be the duty of the Trustees to make such provision in the premises as they may deem expedient.

98. The Scriptures shall be taught daily and systematically by the methods usual in the teaching of literature, history and ethics. Such courses shall be taken up in the various forms as the Education Department may from time to time prescribe.

99. No pupil shall be compelled to take part in any religious exercise or in Bible study objected to in writing by his parents or guardians, and in order to the observance of this regulation, the teacher, before commencing such exercise or lesson, is to allow a short interval to elapse, during which the children of any who have signified their objection in writing, may retire. If, in virtue of the right to be absent from these exercises, any pupil does not enter the schoolroom till the close of the time allowed for this



instruction, such absence shall not be treated as an offence against the rules of the school.

100. The clergy of any denomination, or their authorized representatives, shall have the right to give religious instruction to the pupils of their own church in each schoolhouse, at least once a week, after the hour of closing the school in the afternoon ; and if the clergy of more than one denomination apply to give religious instruction in the same schoolhouse, the Board of Trustees shall decide on what day of the week the schoolhouse shall be at the disposal of the clergyman of any denomination, at the time above stated. But it shall be lawful for the Board of Trustees to allow a clergyman of any denomination, or his authorized representative, to give religious instruction to the pupils of his own church, providing it be not during the regular hours of the school. Emblems of a denominational character shall not be exhibited in a Public or High School during regular hours, nor shall instruction in distinctively denominational tenets be given ; nor shall the Scripture lesson be treated in such a way as to give offence to the known sectarian opinions of any member of the class or his or her parents or guardians.

V. The teaching of the Bible as history, literature and morals is feasible in our High Schools.

I found it difficult, if not impossible, to treat the subject suggested by the title of my paper apart from the more general question of the teaching of the Bible in all our schools. Most of what has been said applies equally to the Public and High Schools. But in some respects the High Schools offer the more inviting field. The teachers are generally better qualified, the pupils more mature. As the teaching of Biblical literature in the University would aid the High School teachers in preparing for this work, so the teaching of Biblical literature in the High Schools would prepare the Public School teachers for it. Books like Job, Proverbs, John's Gospel, and the Epistle to the Romans might be prescribed for literary study. In the literature papers questions might be asked bearing on the prescribed work, with alternative questions on other literature for those who had conscientious objections. An option might be given between Greek and Roman history on the one hand, and Hebrew history on the other. Or there could be school examinations on Biblical history, literature and morals, the standing of the pupils to be reported to the Education Department, and to be taken into consideration in the passing of candidates. Even

if selections were not prescribed, taught, and examined upon, they might be taken up as supplemental literature, but our hopes are for more than that.

As regards the teaching of the Bible in the High Schools, then, permit me to give just a brief *résumé* of what seems to be the most desirable course to pursue :

1. The whole Bible should be the text book.
2. Freedom should be allowed in teaching the subject.
3. Offensive references to matters about which there might be differences of opinion in the class would be avoided.
4. There would be a conscience clause for both teachers and scholars.
5. The best time for teaching the Bible would be the first fifteen or twenty minutes every morning.
6. A suitable course should be prescribed for each form.
7. There might be form examinations in Bible knowledge, and the results would be considered in making promotions.
8. There might be Departmental examinations, with certain options for those who have conscientious objections; or in lieu of examinations the standing of pupils in Bible knowledge, as reported by the Principal, could be taken into account in the granting of certificates by the Education Department.
9. Portions of the Bible might be taken up as supplementary literature.

I must now leave this important question to be dealt with as you see fit. Everybody will not agree with all that has been said, and some may dispute every position that has been taken; yet, however much we may differ as to some of the particulars, I hope that the main matter may so commend itself to you that something practical and effective may be done to attain the end in view.

## THE HISTORY OF HAMLET CRITICISM.

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Even a cursory reference to all criticisms—from Shaftesbury's (1710), which describes the play as almost one continued *Moral*, to Sidney Lee's (1899), which speaks of it as mainly a psychological effort, a study of the reflective temperament in excess—would here be an obvious impossibility. I shall, therefore, confine my attention to the salient points of esthetic criticism, with the hope of blazing a path through the bewildering wealth of material. I must even turn aside from the expert discussion of Hamlet's sanity and adopt for the present the lay opinion of Mr. Furness (1877)—to whose judicious Variorum edition I must otherwise acknowledge my indebtedness—that Hamlet is neither insane, nor pretends to be insane, or the view of Lowell (1870), that if you deprive Hamlet of reason there is no truly tragic motive left.

The exponents of esthetic criticism of *Hamlet*—although we cannot overlook the work of Brandes, the Danish critic (1898), who finds happy touches of local color in this drama, nor that of Turgenieff, which includes an attempt to trace resemblances between *Hamlet* and *Don Quixote*, and two efforts to realize synthetically a Russian Hamlet in *Virgin Soil* and *Dmitri Rudine*—fall into three main classes, the English, French and German. Of the three groups of criticism, the French is the least voluminous, and the German is the most systematic and progressive. The German commentators reflect and react upon the opinions of one another, and their work, as showing most clearly the stratifications of *Hamlet* criticism, will be first considered.

The passage in *Wilhelm Meister* (1795) in which the task imposed upon Hamlet is compared to an oak tree planted in a costly vase, which should have received into its bosom only lovely flowers, has, until recent times, been a sort of text for German critics, though as early as 1741 Lessing, the father of modern esthetics, had turned a profounder consideration on the problem of the ghost. Wilhelm Meister was in his apprenticeship when he expressed this view of Hamlet, and the craftsman Goethe recorded his sense of the baffling nature of the Hamlet mystery. In fact, the earlier view was dramatic and experimental, vast areas of the

play being confessedly unaccounted for. But the method was instructive, and the bold conjecture that Hamlet was plump and fair-haired has proved stimulating.

In reference to Hamlet's character, A. W. Schlegel (1809) could not pronounce so favorable a sentence as Goethe's; he found the prince wanting in resolution and weak in volition. Following up this view, Gans (1834) saw in *Hamlet* the tragedy of the nothingness of reflection, or the tragedy of intellect. Ulrici (1839) boldly claimed, however, that Hamlet did not lack courage nor energy, nor did he lack will or resolution; it was only in having the will guided by the *judgment* that he was slow to act and backward in resolve, the doubts and scruples that beset him were pre-eminently moral doubts and moral scruples. He dared do all that might become a man; who dares do more is none. This seemed to close the discussion of the one phase of Goethe's dictum. But Gervinus (1849) largely adopted the earlier view, and recognized as the moral themes of the drama: that intentions conceived in passion vanish with the emotion, and that human will changes, and is influenced and enfeebled by delays. And Theodore Vischer (1861) accepted and developed in the most subtle manner the opinion of Gans. Thinking alone never leads to action; there is no bridge from it to the fulfilment of the thought. A fit moment for action seems to come, but can we be sure that it is the *absolutely* fit moment? To him whose inmost nature is given to thinking, the *Now* is formidable.

In the meantime Klein (1846) had turned his attention to the character of the task laid upon Hamlet, who is called upon to avenge a secret murder for which there is no evidence to satisfy the popular mind. This view was magnificently expanded by Werder in 1875. The life, not the death, of Claudius is dear to Hamlet, because only through the king can guilt be established. All the prince's actions, as is symbolized by the tablets incident, must be slow and tentative. His error consists in slaying Polonius on a blind impulse. Through this error, however, revenge becomes possible, though Hamlet is involved thereby in the common ruin. After the killing of Polonius, Claudius feels compelled to act; his guilty deeds are a virtual confession and Hamlet, while falling a victim to his own blunder, is allowed to be the instrument of divine vengeance.

English criticism, although it has not advanced in the same systematic way as that just reviewed, has at times been extremely

brilliant and frequently anticipated by many years German comment. Johnson, in 1765, remarked that Hamlet is, through the whole piece, rather an instrument than an agent, and paid a tribute to Ophelia that accords with T. Vischer's tender and much needed eulogy. But Richardson's full and profound exposition in 1784 gives the student of *Hamlet* criticism a shock of surprise. "The tendency of indignation," he remarks, "and of furious and inflamed resentment, is to inflict punishment on the offender. But if resentment is ingrafted on the moral faculty, its tenor and conduct will be different." He found that in Hamlet the sense of virtue possessed absolute power, a view closely corresponding with Ulrici's. Coleridge (1808) of course speaks here as a master; he recognized that he had a smack of the Hamlet in himself. (Kreysig (1858) and Zimmermann (1870) advanced the same opinion of Hamlet as Carlyle expressed of Coleridge, namely, that he was a brilliant fellow without character and without morality.) Criticism has not yet outgrown his far-reaching remarks. According to him Shakespeare in Hamlet "seems to have wished to exemplify the moral necessity of a due balance between our attention to the objects of our senses and our meditation on the working of our own minds—an equilibrium between the real and the imaginary worlds." "His soliloquy, 'Oh! that this too, too solid flesh would melt,' etc., springs from that craving for the indefinite—for that which is not—which most easily besets men of genius." Coleridge in 1812 added, "Shakespeare wished to impress upon us the truth: that action is the chief end of existence, that no faculties of intellect, however brilliant, can be considered valuable, or indeed otherwise than as misfortunes, if they withdraw us from or render us repugnant to action." This truth finds expression in one of the Russian novels I have already referred to, and a more scientific exposition in Professor James' work on Psychology. Passing on we find that Hudson (1848) showed a fine appreciation of certain phases of Hamlet's character. "Hamlet lacks not force of will, as some have argued, but only force of self-will; that is, his will is strictly subjected to his reason and conscience, and is, of course, powerless when it comes in conflict with them." "We are apt to estimate men's force of will according to what they do; but we ought often to estimate it according to what they do not do; for to hold still often requires more strength than to go ahead; and the peculiarity of this representation consists in the hero's being so placed that his will has its proper exercise, not so much in acting



as in thinking." "Thus, the highest possible exercise of will is in renouncing itself and taking the law instead." "Moreover, in his conflict of duties, Hamlet naturally thinks he is taking the wrong one;" "the motives he resists out-tongue those which he obeys." "The idea of Hamlet is conscious plenitude of intellect, united with exceeding fineness and fulness of sensibility, and guided by a predominant sentiment of moral rectitude."

French criticism of Hamlet in the latter half of the nineteenth century has been well abreast the German and English. It is true that Voltaire (1768) while paying court to the ghost for his own purposes, said that "one would imagine this piece to be the work of a drunken savage." But Victor Hugo (1864) expressed the greatest admiration for the poem, and recognized in Hamlet the typical skeptic (*skeptikos*) who terminates the drama of life with a gigantic interrogation mark. Hugo also quoted Æschylus to the effect that, "*To pretend madness is the secret of the wise.*" As Polonius says:

"Your bait of falsehood takes this carp of truth ;  
And thus do we of wisdom and of reach,  
With windlasses and with assays of bias,  
By indirections find directions out."

Charles (1867) found Hamlet swayed by two forces, Passion and Thought, and again he declared that Hamlet is Shakespeare, a view that had been put forward by Taine in the previous year. Courda-veaux (1867) thought Hamlet alternately actuated by filial sentiment and repugnance to murder. François-Victor Hugo (1873) tried to justify the introduction of Hamlet's advice to the players, and moreover saw in the drama a struggle between Will and Fate.

Much of this criticism, French, German and English, seems included in the statement that *Hamlet* represents a man in contest with Fate, but a highly complex man with an untoward and highly complicated Fate, or, to express it more in the language of our time, a highly organized man re-acting vigorously against his heredity and environment.

The view that Hamlet is Shakespeare advanced by Taine has recently received remarkable expansion by Frank Harris in a series of articles in the *Saturday Review* (beginning March 19th, 1898) on "The True Shakespeare." He quotes with approval Prof. Dowden's opinion that in *Hamlet* Shakespeare is in profound sympathy with the character portrayed. The true Shakespeare comes to

light especially in Hamlet, but to a lesser degree in Romeo, Prospero, Vincentio, Jacques, Macbeth and Timon. Moreover, in Shakespeare's treatment of other characters he frequently lapses (*Homerus dormitat*) into his own, that is, the Hamlet manner. Here there seems a danger of proving too much, and, to my mind, the very closest analogy exists between Hamlet and Richard II. The chief value of identifying Hamlet with Shakespeare is to place in a striking light a view anticipated by Coleridge and emphasized by recent criticism that Hamlet is the typical man of genius.

This theory, which I should like now briefly to set forth without being tied down to names and dates, is not inconsistent with previous criticisms. For it will readily be admitted that the most highly developed man is the man of genius. But increased development means increased complexity, so that to dub a man a genius is by no means to explain his character. In fact, this designation is an easy way round a difficulty, an acknowledgment of defeat. When the excellence of a man's mental endowment baffles our analysis, we say he possesses genius. Extraordinary mental powers, however, involve the predominance of ideas; and if a genius has an infinite capacity for taking pains, he may be said to take pains with infinite ease, and he does so because the idea dominates the details. Genius, again, under the guidance of the idea, puts in its bill here or there and selects what is needful for its purpose. It draws like a magnet the essential from the rubbish. Wordsworth thought his own special faculty was genius, because the whole objective world was saturated in his thinking; to him the real was the accidental, and the ideal, the spiritual, or, as Coleridge termed it, the imaginary, was the essential. That the nature of genius is largely inexplicable need not, however, alarm us here, for Hamlet is admittedly enigmatical, and our hope is not to solve the problem, but to be on the road toward a solution.

It is not merely that Hamlet is a genius, but that the phenomenon, the man of genius, is the subject of the drama. And a very fitting subject, for the man of genius in real life attracts us with a mysterious and abiding charm similar to that of a work of art. As a picture at once sensuous and spiritual delights the minds of all, so does this son of earth and heaven. But especially may he be a subject for tragedy, for if, as I conjecture, disease is always an incident of development, and if, as Lombroso and Nordau believe, genius walks hand in hand with weakness and madness, what woes and what dangers surpass those of the highly-organized

man? He is the pioneer who redeems the wilderness, the advance guard who bears the brunt of the attack; to him the earth is a prison-house, for he is the Prometheus who filches for the race the fire of the gods, and he must endure their chains. Increased insight is won by increased sorrow, and the man of genius to the sweat to which the brows of all are doomed adds the blood of his martyrdom.

In the *Divine Comedy* Dante tells the sorrows and triumph of a man of genius. If I understand the opening canto, at the age of thirty-five he arrived at a more thorough conception of philosophical truth through the poetic art. The chief impediments to his development were violence, incontinence and fraud. From these drawbacks Hamlet was particularly secured. He did not share the free life of Paris, which in Polonius' judgment was no stain to Laertes, and his great natural energies were even denied the relief of normal affections. His father's death and the queen's o'er-hasty marriage blocked the natural currents of his feeling, and only Horatio remained when the timid Ophelia, at her brother's suggestion and father's command, repelled his misprized love. War and bloodshed might have blunted his moral sensibilities, though, had he been forced into them, they would, as Fortinbras surmised, have made him a good soldier. In Hamlet outwitting the ambassadors to England we get a hint of what Shakespeare might have become had he gone to sea with Drake, or Coleridge, if he had remained in the army. Hamlet was as far from fraud as from incontinence and violence, "he," as Claudius says, "being remiss, most generous and free from all contriving."

Fulness of power cut off from certain outlets must be fruitful of effects in some line or other, if only in muscular activity. Hamlet had been an athlete, but he had of late foregone all custom of exercises and found himself in a melancholy and plethoric condition. The higher sorts of play might have given relief to his distracted brain, for art uses the surplus powers of man's mind as the fountains and canals of a garden might sluice off the waters of a surcharged river. He displays a remarkable interest in the drama and discourses eloquently to the players on the esthetics of their art. This seems entirely in accord with his character. A highly developed mind, denied other forms of energy, tries to comprehend the details of the universe through art or philosophy. When Hamlet determined not to return to Wittenberg, he relinquished the hope of realizing himself as a philosopher, so that he

has an enthusiasm for the drama that to many critics seems out of character. Wittenberg might have concentrated his abundant mentality; wanting this help the stage was almost a necessity to him, as it must have been to his prototype, Shakespeare. To a person dominated by the spiritual idea, all the world is a stage, and he is driven to give himself over to play-acting, "as if," as Wordsworth observes, "his whole vocation were endless imitation." Such a man, half poet, half philosopher, on account of his very breadth of view, experiences the utmost difficulty in making himself effective, and disgusted with the grossness of the world, he becomes a mere critic, a skeptic, a *spectator ab extra*. Where will he thrust himself in so that he may be a link in the endless chain of cause and effect? How become an actor in this spectacle, this world-drama? If Shakespeare succeeded in rendering himself effective, although he felt himself cut off from preaching, or partisanship, or from emphasizing any one phase of the truth, then the play is the thing whereby the man of the highest genius can regenerate by holding a mirror up to nature and increasing the conscious life of the race. Such was the moral basis of the Globe theatre:

" His eye plunged down the weltering strife,  
The turmoil of expiring life :  
He said, *The end is everywhere,*  
*Art still has truth, take refuge there !*"

Scientists note in man as compared with the other animals, and in the advanced races as compared with the primitive, the enormous development of the cerebral hemispheres. A frog can perform many of the important functions of life after this part of its brain has been removed; but functions instinctive and reflexive with the frog are voluntary and self-determined with man. The man of genius, as the most highly organized man, we must expect to find asserting the predominance of the conscious moral life over the instinctive: in him the psychic centres modify the activities of the reflexive centres. It is very natural to find therefore that Hamlet wishes to submit all impulses whatsoever to the inquisition of his sovereign reason.

This growth in the brain of man is owing to increased inhibition of the reflexes through more and more complex psychic combinations. The fire attracts the child, the burnt child fears the fire, but the experienced child warms itself without getting burned. Hamlet is a study in inhibitions. He is not a libertine, nor a

lover, nor a soldier, nor a king, nor an artist, nor a philosopher; yet potentially he is all these, and has great intellect, great energy and great sensibility. Moreover, with an earnest desire to act, he is so placed that action is an impossibility. The normal, healthy, human machine, no matter how it reacts on the impressions from without, gives out as it receives in, but Hamlet is in a state of wretched congestion, and can only unpack his heart with words uttered in secret. If he had found a cue for action worthy of his high mental powers, his genius would have blazed forth as the meeting of negative and positive currents that find resistance in the carbon. Such a task wanting, the exceedingly stimulating circumstances in which he finds himself give rise to mental currents that radiate and radiate without results in action, whatever is the result in mental activity and brain development.

The vista opened up from this point of view seems infinite, but in conclusion I would mention only another phase of the tragedy. Hamlet suffers not only from his environment, but also from his heredity. He inherited strong natural impulses, and although he identifies himself with his conscious intellect, his god-like reason, he is haunted by the heritage of the past. Ibsen recognized that nothing is more worthy the name of ghost than this spirit of the past that perpetuates itself in us. Each man is the charnel-house of innumerable forefathers. The man of genius will most feel the fetter that his birth—wherein he is not guilty—lays upon his advance. In a time of wars and rumors of wars, the soldiers felt the need of a man vigorous and instinctively quick to act, and sought in Hamlet the qualities they had known in his father, while Hamlet, trying in vain for a synthesis of thought and action, higher and more complex than the old king had dreamed of, and unaided by light from above, is subject to the hallucination of an ideal man of action, to whom psychically-determined activities of the most complex order have become second nature, just as the author of "Rugby Chapel" was haunted by an idealized Dr. Arnold.

No one, however, who has read a fraction of what has been written on this profound drama can hope that a solution of the riddle has been reached by the critics of to-day. This is a sore labor given unto the sons of men to be exercised therewith. For as Hudson in 1870 remarked, "I have learned by experience that one seems to understand him better after a little study than after a great deal."



*FRENCH CANADIAN LIFE AND LITERATURE.*

THOMAS O'HAGAN, M.A., PH.D., TORONTO.

A stranger visiting the Province of Quebec, or as we shall designate it here, French Canada, realizes at once that he is among a people differentiated in life, language, institutions and customs from the inhabitants of Ontario, Nova Scotia, or the New England States. He feels about him the atmosphere of French life and thought, and finds himself face to face with one of the most remarkable phenomena of modern times—the phenomenon of a people planted upon the banks of the St. Lawrence nearly three centuries ago maintaining in fullest integrity their homogeneity amid the disintegrating influences of altered political institutions and the resistless sweep of Anglo-Saxon speech and commercial domination.

It is a phenomenon which contradicts the very teaching and philosophy of history, for were it to accord with the teaching of history the English conquerors who, on the Plains of Abraham before Quebec, in 1759, snatched the Bourbon lilies from the brow of New France should have long since absorbed—assimilated the conquered race.

But the French of Quebec have not only resisted assimilation, they have continued to flourish within their own borders. Nay, they have extended their influence beyond their own borders, and have spread from east to west, “leaving,” as a writer has recently said, “the literal imprint of their footsteps on the geographical chart of America, from New England to the base of the Rocky Mountains and all over the Mississippi valley.”

But their progress has not stopped with material advancement. In the splendor of their genius, the sons of Corneille, Molière and Racine, of Chateaubriand, Victor Hugo and Lamartine have created a literary world—a literary microcosm of their own, and it is of this literary microcosm I purpose speaking to-day.

As you move amongst the people of Quebec, come in contact now with descendants of the old *seigneurs*, now with descendants of the *coureurs de bois*, now with the *habitant*, you naturally ask yourself the question, whence came these people? Of course everyone

knows they came from France, but from what part of France did they come, and under what influence? A story of early French colonization in Canada will answer all this. There are three great groups of French people in North America—Canadiens, Acadiens, and Louisianians. Quebec was settled during the first half of the seventeenth century, Acadia between 1636 and 1670, and Louisiana during the first half of the eighteenth century. The early French settlers in Canada came chiefly from the provinces of Normandy, Perche, Maine, Anjou, Touraine, Poitou, Guienne and Gascony. The French Canadian type is unquestionably Norman.

As to the language spoken by the French Canadians, it is said to be the best language spoken from Rochelle to Paris and Tours, and from there to Rouen. There is a mistaken idea abroad that Quebec is full of *patois*. It is amusing sometimes to hear Ontario people who do not know a word of French, save perhaps a smattering of grammar which they have obtained in some High School, at a breathless pace designate the French of Quebec as a *patois*. This is absolutely false. You will find corruptions, provincialisms and obsolete words in the French spoken in Quebec, but these do not constitute a *patois* any more than Shakespearean or Miltonic words of the sixteenth or seventeenth century constitute a *patois* in the English language. Nor is the French language the only language upon which have been grafted corruptions and provincialisms. Take an educated New Englander or Southerner and compare his language with that of a Tennessee mountaineer or an Indiana Hoosier, and you will quickly realize how many-tongued the American people have become, and into what depths of degradation the language which Shakespeare and Milton and Emerson and Lowell spake has sunk among the uneducated classes in certain quarters of our great neighboring Republic.

There are good reasons why the French spoken in Quebec is, on the whole, devoid of *patois* and slang. Those of the higher classes in Quebec brought with them at the time of colonization the French which was used at court in France, while the common people in Quebec speak the French in use among the peasantry in Normandy which, by the way, is not bad French.

As early, too, as 1639 there were schools established in Quebec for the education of girls, and the culture flowing from those academies and convents must have had a marked influence upon the language spoken among the people.

Add to this again the fact that the number of professional men

in Quebec—lawyers, doctors, notaries and priests—has always been very large in proportion to the population, and the academic scholarship of such men must too have had an additional influence in keeping the French Canadian language refined and pure.

When we turn to consider the blossoming of French genius on the banks of the St. Lawrence we find it richest within the domain of history and poetry. In this Quebec resembles Louisiana. Quebec has produced at least three first-rate historians—Garneau, Ferland and Faillon, while we in Ontario have really but one—Kingsford. The truth is that in Quebec they give more attention to the preserving of historical records and monuments than we do here in Ontario. The Historical Society of Quebec has done more in this way than all the other historical societies of Canada together. The fact is, Quebec has more true national life to-day than any other province in Canada. Of course I leave out any consideration of froth and rhetoric.

In the department of fiction Quebec has not done so well. Bourassa has given us "Jacques et Marie," a novel based upon the destruction of "Acadia, home of the happy," and DeGaspé has given "Les Anciens Canadiens," which is a vivid picture—a vivid epitome of life at the *seigneuries* and among the *habitants* in the early days of French Canada.

It must be confessed, however, that the three best distinctively Canadian novels—"The Golden Dog," "The Seats of the Mighty," and "The Forge in the Forest," belong to the English department of Canadian literature. Two of these, nevertheless, owe their existence to the data supplied by an eminent French Canadian literator, Sir James Le Moine, of Quebec, and the other has its root in an episode written in French tears and blood.

It is in the realm of poetry that French genius in Quebec has flowered most luxuriantly. Here as we enter the gate we are beset with an embarrassment of riches. It would be difficult to find four English poets in Canada who have produced such work as Cremazie, Frechette, Le May and Sulte have done. I consider Frechette by far the greatest poet that Canada has yet produced, English or French, and I am not unmindful of the Tennysonian beauty of Lampman's work, the bold uplift and melody of Campbell's work or the Greek artistry and patriotic glow of Roberts' verse.

Frechette and Le May are very different in their spirit and methods. A note of hope rings through the lines of Frechette,

while the muse of Le May is melancholy and dreamy. The latter puts into his work something of the spiritual music of Chopin and Liszt. The French Academy crowned Frechette's drama of "Papineau" in 1881, and since then Dr. Frechette has been known as the French Canadian Laureate. Le May has made a translation of Longfellow's "Evangeline," which is most admirable.

Now I have to make a suggestion just here. Would it not be patriotic, would it not be in the best interests of Canadian life, would it not be in the best interests of Canadian literature and Canadian scholarship if a volume of our best French Canadian poems were introduced as a text-book in French in our Ontario High Schools? Through its pages we here in Ontario would learn to know something of the strength of genius of our neighbors in Quebec and cultivate in our schools that broad patriotism

" Which knows no tongue, nor race, nor creed,  
But our Dominion solely,  
Our Native land ! "

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*REALISM IN MODERN LITERATURE.*

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*(An Abstract.)*

The term "realism," and its correlative, "realist," as applied to art, became prominent in France about 1850, or soon after. It was accepted, with certain reservations, by the painter, Gustave Courbet, to characterize his new treatment of common-place subjects.\* These words, with this sense, were admitted to the Dictionary of the Academy in 1877 (having appeared in Littré a few years previously). . . . In English dictionaries they are more recent scarcely appearing before 1880, and not even in Chambers' Encyclopedia, 1881, nor in the late edition of the Britannica. . . . The words "naturalism" and "naturalist," though used more than two centuries ago in describing a school of French painters, have not yet been universally adopted in art or literature; and do not occur with this signification either in the Academy Dictionary of 1877, or in the English "Imperial Dictionary" of 1898, though given in the "Century" and the "Standard," and in the latest French dictionary (now being published) by Hatzfeld and Darmesteter. Zola has tried to appropriate these last two words to the designation of the extreme realism of France, while Brunetière and others would reserve it for the broadest and best sort of fidelity to nature in its widest sense. This difference corresponds to what would seem to be a real distinction, useful for our present purpose . . .

The effort of the artist to make a faithful representation of reality is as old as art itself, and is its foundation. But this effort varies with the skill and the spirit of each age. . . . With the rise of the science of natural objects and phenomena since the Renaissance, men have singularly modified their conceptions of their material environment. . . . It is the rapid and wide diffusion of the scientific spirit in our own century which makes our realism different from all that has preceded it; material things having become

\* His celebrated "Enterrement à Ornans" and "Casseurs de pierres" belong to 1850; his Realist Exhibition, to 1855.



for us far more complex, if at the same time better understood.

. . . It is significant to note that the first thirty years of our century saw the birth of a remarkable group of men, who have profoundly modified our conceptions of man's place in nature and in society, of human life and human happiness.\* . . . Art naturally shows this change, especially in its impatience of the license allowed the imagination to idealize common things and to dispense with painstaking exactness.† . . . Literature especially reflects the new spirit, and here, as in painting and sculpture, the change is accentuated by the coincident reaction against Romanticism.‡ The high idealism which marked the close of the eighteenth century and the beginning of our own, the bright visions of liberty, equality and brotherhood, the triumphant emancipation of the individual and the exaltation of the *ego*, gave place to disappointment and to the new pessimism which finds the key to existence in the law of evolution, with its struggle for life and survival of the fittest. . . .

The novel is the most typical form of literature in the nineteenth century, and it reflects more completely than poetry or the drama the tendencies toward realism. . . . A chronological examination of the principal novels in different countries would show that realism began to appear quite early in the century—contemporaneously, indeed, with some of the masterpieces of Romanticism. (Which shows the difficulty of separating sharply the so-called "schools.") It was already quite distinguishable between 1830 and 1840, became more pronounced after 1850, and in 1875 began (in France especially) to produce its worst fruits; which, in reality, result from the vicious application of a method not itself radically bad.§ . . .

\* Comte, 1798; J. S. Mill, 1806; Strauss, 1808; Darwin, 1809; Spencer, 1820; Renan, 1823; Huxley, 1825; Taine, 1828.

† Millet, 1814; Courbet, 1819; Ruskin (1819) and the Pre-Raphaelites, etc.

‡ There was, doubtless, a further influence at work in the revolt against the jejune dandyism and barren elegance which had marked most of the imaginative literature for some time before the rise of Romanticism, and was all that remained of the Classicism of the age of Louis XIV.

§ Jane Austen wrote, between 1796 and 1817, six remarkable works ("Pride and Prejudice," etc.), which are surprisingly realistic for so early a date, and anticipated much of what was produced long after. Stendhal, "Le Rouge et le Noir," 1830; Balzac, "Eugénie Grandet," 1834; Gogol, "Taras Bulba," ca. 1834; Dickens, "Pickwick Papers," 1836; Dostoiéwsky, "Poor People," 1844; Thackeray, "Vanity Fair," 1846; Dumas fils, "La Dame aux camélias," 1848; Tourguenoff, "Annals of a Sportsman," ca. 1848; Tolstoi, "War and Peace," 1853; Les Frères

Among the means by which the novelist produces an impression of reality may be mentioned these: An abundance of details in description and characterization; the sharpness of their definition; their banality, vulgarity or ugliness (whence the introduction of common people and speech, dialect, etc.); absence of rhetorical language; modernity of scene and action, etc.

Any or all of these characteristics may exist in various degrees of predominance in any work of fiction, and even in conjunction with bold flights of imagination.\* They may even co-exist with didactic tendencies.† It is realism of this sort that we have had in English literature until very recently, when imitations of the extreme French type began to appear. . . .

This French school of 1875, with its leader, Zola—who claims literary descent from Stendhal and Balzac, and who wishes to appropriate the name “naturalist”—shows very interesting characteristics which have been clearly formulated by Zola and others,‡ and leaves us in no doubt respecting its aims. . . .

One of its marks, in Zola’s hands particularly, is its pseudo-scientific air. Zola claims for the novels of his group all the value of scientific experiments, in which human entities are exhibited as acting under the influences of heredity and environment (*milieu*) in a perfectly determinable manner!!§ . . . Hence, an uncompromising determinism, which Zola in vain attempts to distinguish from fatalism. The brain of man being governed by the same laws as the stone of the highway,|| there is no struggle of the will between the call of duty and the promptings of inclination. . . . The body is everything. Psychology is superseded by physiology.

Goncourt, “Renée Mauperin, 1854; Flaubert, “Madame Bovary,” 1857; George Eliot, “Adam Bede,” 1859; Zola, “Thérèse Raquin,” 1869, and “Les Rougon—Macquart,” 1871-1893; Maupassant, 1880-1893. [The list could be extended so as to include more recent works, as those of Hauptmann and Sudermann; Gabriele d’Annunzio and Matilde Serao; Thomas Hardy, George Moore, Kipling, Howells, etc., etc.]

\* Notably in the romances and plays of Victor Hugo.

† As in the novels of Dickens and Thackeray, Tourgueneff and Tolstoi, etc. See particularly “Adam Bede,” ch. xvii. Cf. Ruskin, “Modern Painters,” III. ii. 3.

‡ Zola, “Mes Haines,” “Le Roman expérimental,” “Le Naturalisme au théâtre,” “Les Romanciers naturalistes,” etc.; Edm. de Goncourt, Preface to “Les Frères Zemganno”; Maupassant, Preface to “Pierre et Jean,” etc., etc.

§ “Le Roman expérimental,” pp. 16, 19, 22.

|| *Ibid.* p. 15.

Man is merely the sum total of his organs and sensations.\* . . . Man is the same under the dress coat as under the workman's blouse. There is always the beast *au fond*.† . . . There being so little difference, these realists choose their characters from the commonest of the people, when not from the most vicious and degenerate, preferring the vulgar and the pathological, which are easier to describe, and better material for use in a propagandist combat, as theirs avowedly is.‡ . . . Another of their great achievements, in Zola's opinion, is the suppression of the imagination, which is replaced by the calm observation of facts, and their systematic arrangement in the proper order: nothing else being necessary to make a work of art.§ . . . Not only the author's imagination, but his personality as well, must be suppressed.|| The story must tell itself. As Flaubert put it, "That work is condemned which allows us to guess its author." . . . Hence, no sympathy with the characters of the story, whatever fortune befall them. Having none of the warm kindliness of Dickens, George Eliot or Alphonse Daudet, the work is cruel and cynical in spirit. . . .

Such are some of the salient characteristics of the ultra-realist group of French novelists, beginning with Flaubert and the Goncourt brothers, and continuing through Zola and Maupassant—to mention only the most notable. Much of their work has been excellent from the point of view of fidelity to nature, and the spirit of Zola is intensely serious, even apostolic: but all are more or less wanting in that deep insight into the working of the soul, without which art lacks its better part. . . . The faults of their method (it is mainly a question of method after all) are quite obvious: the restriction of art to the reproduction of only that reality which is matter of sensation and feeling; the indiscriminating acceptance of all the elements offered by reality to our senses; the accumulation of details purely for their own sake; the slavish copying of a chance arrangement, however incoherent; the fragmentary and isolated, instead of the co-ordinated study of real things; the absence of that informing spirit which supplies the imperfections of inanimate objects, and especially of living beings,

\* "L'Œuvre," pp. 209, 210; "Les Romanciers naturalistes," pp. 88, 89.

† "Le Roman expérimental," pp. 127, 266-268.

‡ "Les Frères Zemganno," p. ix.; "L'Assommoir," Preface.

§ "Le Roman expérimental," p. 259.

|| *Ibid.* p. 41.

and represents them in their integrity and their true significance ; the negation of human liberty and of the ethical aspect of motive and action. . . .

Tolstoi, himself one of the greatest realists, has recently given to the world his philosophy of art : " Art is a human activity, consisting in this, that one man, consciously, by means of certain external signs, hands on to others feelings which he has lived, and that other people are infected by these feelings, and also experience them."\* And elsewhere he adds : " The stronger the infection, the better is the art as art, speaking now apart from its subject-matter, *i.e.*, not considering the quality of feelings it transmits."† For Tolstoi, the value of art consists in its power of uniting men in a communion of right feeling.‡ . . .

This criterion of art is surely nearer the truth than many others that have been propounded since the time of Aristotle ; but whatever its value, we are justified in seeking a wider basis of judgment than that afforded by the mere proportion of pleasure or pain which the consideration of a work of art produces in us ; although that criterion, if properly formulated, would form no unsound one, as far as it goes. But we cannot shut our eyes to the fact that all art, and especially literary art, has a power of *suggestion*—undeniable, though imperfectly understood—which makes it a medium of refinement and elevation, or of corruption and debasement. Whatever in art tends to exalt the lower passions, the impulses of primitive man, is inimical to society at large, and to our civilization, which has been attained at great expense of effort and error. . . . The old virtues, consecrated by the experience of the race, the virtues of the family and the virtues of the larger community and the nation—these art must favor and conserve if it is to be good art. And any realism in art, which by its cynicism, its despair, its fatalism, its negation of fundamental principles, tends to spread a contagious disregard of these virtues, makes for the disintegration of society and must be condemned. . . .

The striving after true fidelity to nature is one of the most precious qualities of art, and it would seem as if some sort of true

\* " What is Art ? " chap. v. † *Ibid.* chap. xv.

‡ Compare this theory with that of the French philosophic writer, Guyau, in his " L'Art au point de vue sociologique " (1889), from whom Tolstoi would seem to have got the suggestion of his, although he credits no one with it. Guyau values art according as it promotes sympathetic sociability among men, and between men and the artist.

realism—or, if you prefer, true naturalism—must be an indispensable condition for the art of the future. We have already had such of its products as lead us to expect still better things. The day of Zola and his school, if not already past, will not last long. Literature has turned into new ways. The sickly productions of symbolism and decadent art are themselves a revolt against gross realism. But they are morbid and lacking in virility. They are only the maundering of diseased minds, and can have no effect upon healthy people. Mankind is at heart strong and sane; and, to judge by the signs of the present moment, we shall perhaps see more of the realism of sympathy and love—which is the only gate to an understanding of anything—in the new century which is at hand.

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*THE HUMOR AND SATIRE OF THE FIRST ROGUE STORY.*

W. H. FRASER, B.A., TORONTO.

The object of this paper is to give a brief analysis of a curious book. No attempt will be made to define the sufficiently obvious character of the humor and satire in which the book abounds.

The title of the paper suggests some preliminary questions. What is a rogue story? Which was the first one?

A recent writer has defined a rogue story as "a romance describing realistically the shifts and adventures, perils and escapes of a light-hearted, witty, spring-heeled knave, who goes through all worldly vicissitudes, thus lending himself to his creator's purpose of gaining the opportunity to describe or satirize all classes of society." This is a somewhat elaborate definition. The essentials of the rogue story are the rogue, the relation of his adventures by himself, and his observations and reflections on those with whom chance brings him into contact. From another point of view, it is a picture of the seamy side of life, or society as seen from the servants' hall. Humor and satire are of the essence of it.

The first fully developed story of this type is universally admitted to have been the "*Lazarillo de Tórmes*," a Spanish work, which appeared in its first edition in the year 1553 or 1554. Its author is probably unknown. For a long time, indeed, till quite recently, it was attributed to Hurtado de Mendoza, 1503-1575, a Spanish grandee, general, statesman, humanist, poet and plenipotentiary extraordinary to the Pope, under Charles V. He was, besides, the historian of the rebellion of Granada, of which city he and his father before him were sometime governors. Mendoza was said to have written the book for diversion while a student at Salamanca some time between 1520 and 1525. But the profound knowledge of the classes it describes, the maturity of power which the book exhibits, and the fact that his name was only coupled with it fifty years later, as well as other circumstances, have led critics to deny him the high merit of its authorship. It was first published anonymously, and, indeed, the author of the "*Lazarillo*" had very good reasons for concealing his identity, owing to his scathing references

to churchmen. Later investigations have coupled its authorship with the name of a certain monk of the mendicant order of St. Hieronymus, Juan de Ortega, who was in some disfavor in his day owing to untimely reforming tendencies, and who also, curiously enough, is said to have written the book while a student at the University of Salamanca. Sigüenza, the historian of the order, even states that the rough original copy of the work was found in the cell of Fray Juan.

Let me say a word now as to its place in Spanish literature. The literature of Spain was a rapid and vigorous growth. At the time of the appearance of the "Lazarillo," not 300 years had elapsed since Alfonso the Wise, he of "Las Siete Partidas," or "Seven Books of the Law," had created Spanish prose. Spanish literature was a spontaneous growth, practically but little affected hitherto by humanism or by contemporary foreign literature. But in the twenty-seven years between "Las Siete Partidas" and the "Lazarillo" all the characteristics in the "Lazarillo" had appeared in essence. Don Juan Manuel, the soldier, statesman, author, nephew of Alfonso, had shown how to tell a short story, forming a fair literary parallel to Boccaccio. Juan Ruiz, the Archpriest of Hita (the Spanish Chaucer), had introduced wit and satire. The anonymous ballad-writers had recounted innumerable deeds of adventure, and when the "Lazarillo" was written, the drama, already approaching its maturity, was reflecting in its mirror the every-day life of the people. Fernando del Pulgar had written his character sketches, and Montalvan his "Amadis de Gaula." Such were in general the predecessors of our author. It remained for him to create a new type in literature, a type not only admirable in itself, but most fruitful in its progeny.

When "Lazarillo de Tórnes" was written in the reign of Charles the Fifth, Spain was glorious outwardly, but inwardly wretched. A period of inflation had followed the conquest of the Moors, the consolidation of Castille and Aragon, and the discovery of America. The "boom" was now over, once for all. Add to this that the foreign ambitions of Charles were draining the country of its resources, trade languished or fell into the hands of aliens, ruinous taxes oppressed both poor and rich, beggars and adventurers swarmed in the highways and byways. Of this darker side of a brilliant exterior the book gives a marvellously vivid picture—the blind beggar, the needy and parsimonious priest, the indulgence-seller wringing the last farthing from the ignorant and poverty-

stricken peasantry, the decayed nobleman with nothing left but his inflexible pride. These are some of the types we meet with in this little book of some fifty pages, and through it all runs a keen satire on humanity in general, which in some of its strokes has never, I think, been surpassed.

The particular kind of novel of which *Lazarillo* is the prototype is commonly known as the *picaresque* (Spanish, *novela picaresca*). The word is derived from the Spanish *pícaro*, which has the various meanings of our "rogue," "roguish," "knave," "knavish." *Pícaro* is from a very old and very fruitful root which has given in English, for example, such words as "beak," "peck," "pick." The *pícaro* was primarily an individual addicted to picking up, and it is a curious vagary of etymology that in the Canadian North-west no one ever steals—he only "picks up" what he appropriates of the goods of others. The *chevalier d'industrie* or "picker up" was a very common character of those times. Not to speak of other sources of his origin, the luckless returned American Klondikers of the period formed of themselves a large class. Of such unprincipled, sharp-witted, knaves *Lazarillo* is the representative, and the story of his adventures constitutes the first picaresque novel.

The book is divided into eight chapters, or *tratados*, as they are called, and in the first of these the relater and hero tells of his birth and apprenticeship in roguery. His name is *Lázaro* (Lazarus), a very appropriate name, as you will see presently, the diminutive of which is *Lazarillo*. I might remark, parenthetically, that *Lazarillo* has now become the ordinary word for a beggar's boy, the strongest proof of the hold which the story took on popular taste. The title of *de Tórmes* is taken from the fact that he was born within the River Tormes, that is, in a mill within the river, his father, Thomas González, being the miller. When *Lázaro* was some eight years old his father was accused of having bled too profusely the corn-sacks of his customers, was imprisoned, confessed, and as *Lazarillo* jocularly says, "suffered persecution for righteousness' sake," expressing the hope that he is now in glory, for does not the Scripture say, "Blessed are those who endure persecution for righteousness' sake"? At any rate, he disappeared from view, and ended his life as a muleteer in the Moorish war. The widowed mother moved into Salamanca, established a boarding-house for students, and took in washing. Moreover, she consoled herself for the loss of her husband by replacing him with a Moorish one. *Lazarillo's* little black-faced step-brother gives him the occasion for

making his first profound moral reflection, for this child pointing in fear at his father's black face calls out, "Mamma, mamma, the boo-man." "I," says Lazarillo, "though but a child, noted that word, and said to myself, how many there must be in the world who fly from others because they do not see themselves."

Lazarillo's education in roguery did not suffer from the loss of his father. The Moor Zayde turned out a sorry thief, stealing even the shoes from the feet of his master's horses. He was found out, properly dealt with under the law, and the mother became servant at an inn. A blind beggar came to the inn, asked and obtained the gift of the boy, and left Salamanca forthwith. Passing across the bridge Lazarillo received his first lesson from this worthy master *pícaro*. "Go up to that stone statue," said the blind man, "put your ear quite close, and you will hear a strange rumbling." The boy did so, only to have his head knocked unmercifully against the stone by the malicious old man, with the remark, "Learn that a blind man's boy must know a thing or two more than the devil." "I appeared at that moment," says Lazarillo, "to awaken from my childlike simplicity, and I said to myself, 'He speaks truly, for it behoves me, being alone in the world, to keep my eyes open, and learn how to look out for myself.'" This was his initiation into knavery, and he gives due credit to his master, for he says, "Though but a blind man he enlightened me, and showed me how to get on in life." He learned from the blind man the maxim which forms, one might say, the keynote of his career, "What a virtue it is for men of low estate to rise, and what a vice for those of high estate to come down in the world."

In all the arts of malice and hypocrisy the blind man was a past master. Most devout in his bearing, he knew by heart hundreds of prayers for all possible occasions in life, and gained his livelihood by rehearsing them for alms. He was withal so avaricious and cruel towards the child that Lazarillo says, "If I had not contrived to help myself by my cunning and artifice, he would have starved me to death." The meanness of the master and the tricks of the boy form the bulk of this first chapter, most amusing in the telling, but too long for quotation here. Lazarillo tells, for example, how he used to rip and sew up again the seam of the sack in which his master jealously guarded the food; how he turned all the money he could filch from him into half maravedis, which he adroitly substituted for the whole maravedis given as alms for his master's prayers; how he tapped the wine jar, first with a straw, and afterwards



with a small hole bored through the bottom and stopped up with a bit of wax, until, on discovery of the fraud, the old man almost killed him by breaking the jar over his head; and of how finally he made up his mind to desert, in consequence of having substituted a wilted carrot for a sausage, which the master was roasting on a spit, and which he incorporated into a sandwich much to his disgust. Leave him at last he did, after suffering all manner of ill-usage. The method of his leave-taking was a happy counterpart in revenge to the cruel initiation of Lazarillo into his profession. It had been raining all day, and they were seeking their inn at evening. A brook was to be crossed. The boy pretended to find a narrow place where they might spring across. I give what happened then in his own words: "I placed him right in front of a pillar, and said to him, 'Come now, jump with all your might.' Hardly were the words out of my mouth, when the poor blind man poised himself like a goat about to spring, took a step back to jump the better, and crashed his head against the pillar, which resounded as if struck by a pumpkin, and fell back with his head split open and half dead. 'How now?' said I, 'You smelt the sausage, and not the pillar? Smell,' said I, and I left him to the people who ran up to help him."

The second chapter is an account of a hand-to-hand struggle between the inventive wits of Lazarillo and the superhuman stinginess of his new master, who was a priest. Lazarillo was his acolyte, having so profited by the pious training of his late and unlamented master as to be able to discharge the duties of such an office. The chapter is at the same time a character sketch, and a very spirited one, of unmitigated sordidness.

Lazarillo soon realized that he had jumped from the frying-pan into the fire. In his new quarters he could not even console himself with the sight of food, for everything eatable was collected and stored in a box of which the priest carried the key at his girdle—not quite everything, for there was a bunch of onions, carefully counted, locked up in a garret, of which Lazarillo received the key every four days, with permission to take one, and an admonition not to be always intent on gluttony. This slender diet with a little soup from the very ample repast of his master was his sole sustenance. On Saturdays the bones of a sheep's head, already well picked, were thrown to him as a special luxury. At the end of three weeks he could hardly stand upright, and would surely have descended to the tomb, if, as he says, "God and my own wits



had not come to my aid." His previous methods of filching failed him, for this master could see only too well, and while Lazarillo took up the collection, with one eye on the plate and the other on the people, "dancing in his head like quicksilver," he checked off every maravedi. Nor could he filch in the fetching of wine, for his master saved what was left from the mass, and it went into his strong box with the remark, "See how temperate we priests must be in eating and drinking," which was not so in his case, for at wakes and feasts at other people's cost he ate like a wolf and drank like a funnel.

Speaking of wakes gives occasion for a fine stroke of grim humor, and Lazarillo describes how his hunger made him an enemy of the human race, for as good cheer was free at wakes, he used to pray God fervently to take to himself at least one parishioner each day. But his prayers were not wholly successful, since in all only some twenty wakes resulted therefrom during all the time he served in the priest's house.

He would have left this master but for two reasons: (1) He could not trust his weak legs to carry him off, and (2) he feared to try a third master, since the first had half starved him, and the second had brought him to the very verge of the grave.

His quick wits found a way of deliverance at last. During his master's absence, a tinker came along one day. Lazarillo, "illuminated by the Holy Spirit," as he puts it, feigns to have lost the key of the bread box. The tinker fits a key to it, takes his pay from the contents, and things begin to go better, for Lazarillo has now free access to the "bread paradise." Then begins a struggle between the inventive genius of our knave and the sleepless vigilance of his master's meanness. The master, counting carefully by days and loaves and fingers, becomes aware of a deficit. The box is somewhat time-worn, and this suggests mice. Lazarillo prolongs his life by scratching mice holes in the bread, and receives besides the cuttings around these at supper, with the consoling remark made by his master, "that the mouse is after all a cleanly animal." Next we have a very graphic description of the master extracting old nails from the walls and seeking thin bits of board to patch up the box as tight as a trivet. Lazarillo outwits him again by making a new mouse-hole with an old knife. A mouse-trap is set, and our hero eats the cheese or bacon of the bait, but no mice are caught. This is explained on the theory that the thief must be a snake. The miser prowls about the house by night in wait for it with a

club. Lazarillo has all along kept the key in his mouth at night for extra security. Alas for him! One night in his sleep the key is blown by his breath, and makes a hissing, rustling sound. This is mistaken for the serpent, and a blow of the club dealt in the darkness makes an end of the imaginary reptile and almost finishes the real culprit at the same time. When recovered from his wound, he is led to the street by his master, who dismisses him saying: "From this day you are free; I have no use for such a clever servant: you must have been a blind man's boy." "And crossing himself, as if I had been possessed of a devil," says Lazarillo, "he went into the house and locked the door."

A modern author would probably have entitled the third chapter, "Pride and Poverty," or "The Starving Hidalgo." It bears, however, the simple superscription, "Of how Lazarillo took service with a nobleman, and of his fortunes while with him." It is a picture, verging on the terrible in its grimly humorous, realistic details, of a third type of sixteenth century Spain, the nobleman, who cannot or will not work, and who is ashamed to beg. Borne up by his indomitable pride, he suffers the tortures of hunger under a decent and even jaunty exterior, while waiting in vain for a position befitting, as he thinks, his nobility. His loftiness appears at the moment of his finding Lazarillo in the street. "He looked at me and I at him, and he said, 'Boy, are you seeking a master?'" "Yes," said I to him. "Well, follow me, for it is of God's grace that you have fallen in with me."

I shall not be able to refer to more than one or two of the very many admirable touches of this lengthy chapter. Here is one: Master and boy go home to the dingy, solitary abode, without fire, food or furniture. "When we had entered, he took off his cloak, and asking if my hands were clean, we shook and folded it, and blowing carefully the dust from a stone bench that stood by, he laid it thereon." Thereafter, while waiting for the repast that never comes, Lazarillo gives him an elaborately fictitious, though flattering, account of himself. Finally the boy, who has not eaten since day-break, extracts some remnants of bread from his dirty pockets. The proud hidalgo feigns a lofty curiosity regarding the bread, and ends up by falling to so greedily that Lazarillo is forced to make haste to secure his share of it. This might almost suffice to give an idea of the poverty element in the picture, but I shall supplement it by a description of his highness' bed, which the new servant is duly instructed how to make. "I took my place at one

end and he at the other and we made the wretched bed, which was soon done, for it consisted of a frame-work of stout canes laid upon a couple of benches, and over this the bed-clothes upon a sorry mattress, which from its filthiness and scantiness of wool therein seemed hardly fit for such a purpose. This we spread out and sought to make soft; but it was impossible, for one cannot make soft that which is of its nature hard. The cursed pack-saddle-like thing was full of emptiness, and when we laid it on the bedstead the canes showed through like the ribs of an attenuated swine. Upon this lean and hungry mattress was a quilt to match, the color of which I could not determine."

To beguile his time and diminish the pangs of hunger, our hidalgo promenades the streets all day long. Here is a picture of his departure for his daily interminable walk: "Then he thrust his sword into its scabbard, hung it at his belt, and walked out with slow and dignified stride, erect carriage, balancing jauntily head and body to this side and to that, throwing the fold of his cloak now over his shoulder and again over his left arm, his right hand resting on his hip, with the elbow forming a rigid right angle." Among his parting instructions is this: "Lazarillo, take good care of the house, and if you go out lock the door carefully, so that nothing be stolen." This agony was prolonged for weeks. Lazarillo meantime taking to his old trade of begging to keep himself and his master from utter starvation. At last the heartless landlord intervenes, the rent must be paid, the hidalgo goes out to change an imaginary ducat, and never returns.

Why was this cruel suffering endured? The cause is confided to Lazarillo one day in a moment of friendly intimacy resulting from a less scanty meal than usual. The hidalgo had left his home in old Castille where he had at least a competency, simply and solely to avoid the necessity of taking off his hat to a neighboring nobleman with whom he was not on good terms.

The delineation of the fourth master is extremely brief. Though a mendicant friar, he was an arch enemy of the mass and the cloister bill of fare, was much given to worldly affairs and the making of visits, and wore out more shoe-leather than all the rest of his brethren put together. He gave Lazarillo the first shoes he ever possessed, but as he was obliged to accompany his master on his rounds, they only lasted him a week, after which time on account of the peripatetic habits of the master and on account of other things which he prefers to pass over in silence, he left him.

His fifth master is described at the very outset as being the most impudent, shameless, and expert indulgence-seller that he or any one else in the world ever saw, so many artifices did he possess, and so many new ones did he invent.

The indulgence-seller was, of course, an historical fact of those times, usually, perhaps, an unprincipled rogue who took advantage of the laxity of church discipline to trade on the ignorance and superstition of the lower classes. But I think that the author's design in this chapter was first and foremost to satirize hypocrisy—hypocrisy, deliberate, cunning, elaborate and blasphemous, exhibited here under the concrete type of the trader in spiritual green-goods.

This individual, as immediately appears, understood human nature, understood how a gift "blindeth the eyes and perverteth the judgment," for he prepared the way for his business in every new parish to which he came by small presents to the clergy of trifles like a few bunches of salad, or it might be a few peaches, pears or apricots. This gave him also occasion to estimate the character and attainments of the clergy. If he ascertained that they knew Latin, he spoke never a word of it, not to betray his own ignorance of that tongue. If he found out the contrary, he played the role of St. Thomas Aquinas, and spoke Latin two hours at a stretch, at least adds Lazarillo, guardedly, "something that seemed like Latin." The remainder of the chapter is a circumstantial account of one of the exploits of this crafty rogue.

He had preached, and advertised his wares in a village near Toledo for three days entirely without success. As a final measure he announced himself to preach the next day after mass, in order to afford the parishioners a last chance. The evening before, at the inn after supper, he and his attendant constable or apparitor were playing at dice for drink. They quarrelled and came to blows. The master called his man a thief, who returned the compliment by calling him a forger. After the intervention of the police they were separated with the greatest difficulty, and so matters stood till the morning.

The report of this altercation had spread abroad meanwhile and aroused much suspicion, so that when the master mounted the pulpit there were many insinuations afloat regarding him and his merchandise. Now comes a dramatic scene. In the midst of his commendation of the indulgences, the offended apparitor appears, denounces him as an impostor, declares he has been induced by the



desire of gain to help him in his wickedness, and, in short, warns the people solemnly against him. Quite unperturbed the indulgence-seller listens to the end, asks him if he has anything more to say, and then offers a most solemn invocation to God to declare the truth of the matter by a special miracle. No sooner is the prayer ended than the apparitor falls to the floor, with such a thump that the whole church re-echoes, begins to bellow, foam at the mouth, struggle, roll over and over, and to kick, as Lazarillo says, "like the most vicious mule," so that it took some fifteen men to hold him.

During the whole proceeding, he says further, "My master remained kneeling in the pulpit, hands and eyes uplifted to heaven as one entranced, and the uproar and shouting in the church availed nothing to disturb him in his pious abstraction." At the earnest solicitation of the people in favor of the stricken sufferer, he comes to himself like one awakened from a sweet sleep. He bears the misguided man no ill-will, not he. He invites the people to join him in prayer for him. The pious fraud approaches him with cross and holy water, lifts his eyes and hands to heaven so devoutly that of his eyes only a very little of the white is visible, and begins a long and touching prayer that moves all to tears, like a Lenten sermon. To crown all he sends for one of the indulgences, lays it on the brow of the sufferer, who gradually comes to himself again, falls at his master's feet, beseeches his forgiveness, and confesses that the devil has impelled him to denounce his master, above all as his satanic majesty is much vexed at the damage to his realm through the sale of the holy indulgences.

The offending sinner is freely and generously forgiven, and all press forward to purchase indulgences, so much so that hardly a living soul in the village, men, women and children, fails to secure one. The story of the incident spreads abroad in the neighboring villages, and when the traders come thither, neither sermon nor service is necessary. The indulgences go off, as we might say, "like hot cakes"—as Lazarillo puts it, "like pears given away for nothing." In twelve villages round about, as many thousand indulgences are sold without a single sermon.

The moral reflection on all this premeditated and dramatic fraud is masterly in its simplicity and satire. It is a wonderful example of that temperance and self-control characteristic of the highest literary skill. Says Lazarillo, "When the trick was played, I confess I myself was horrified and believed in it like many others,



but when I saw the laughter and joking of my master and his man over it, I noted how the latter had been put up to play his part by my cunning and resourceful master, and although I was but a boy, I could never care for him again, and I said to myself, 'How many such tricks are played on innocent people by, such tricksters.' "

Our hero's next service was that of paint-grinder to an artist, whom he dismisses with the remark that with him again he suffered innumerable hardships. But the beggar's boy with his wit and dexterity was rising in the social scale. On going into the cathedral of Toledo one day, he fell in with a chaplain, who took a fancy to him, set him up in business with a donkey, jars and whip, as a water-seller in the city, with the sole condition that he should pay thirty maravedis a week as rent for his outfit. This was his first step upwards. He had already become a fine-looking youth, and after four years of steady attention to the new business, he was able to fit himself up respectably with second-hand clothes—a fustian doublet, a seedy coat with slashed bell-sleeves, a well-patched cloak, and a good old sword. Then he retired from business, with other ambitions befitting his new clothes.

His next promotion was to the office of police constable, very well in its way, but a trifle dangerous, inasmuch as his superior officer was fallen upon by ruffians and half killed, but Lazarillo, of course, saves himself by taking to his heels.

He is now anxious to obtain some remunerative post with light duties (the lighter the better), good pay, and reasonable prospects for old age. What position so ideally perfect in these respects as one in the civil service of His Majesty? So thought Lazarillo, and in his ambition we have a satirical reference of the author to one of the great evils of the times. His ambition is satisfied, he obtains the position of town-crier and auctioneer, and is perfectly successful and content therein.

In the discharge of his official duties, he becomes acquainted with the rector of the church of San Salvador, who, taking a fancy to him, proposes to give him one of his maid-servants in marriage. His reason for accepting the offer is characteristic: "And, as I well perceived, that from such a man only good fortune and advantage would fall to my lot, I married the maid, and had no occasion thereafter to repent it. For besides the fact that she is a kind, industrious, helpful wife, I receive constantly all favor and aid from my master the rector; he presents me always several times a

year with a sack of wheat, meat at Easter, bread now and again, and I fall heir to all his old clothes. On Sundays and holidays we always dine with him, besides which he has rented us a cottage near his own house."

The only drawback is that scandal-mongers misinterpret the excessive kindness of his patron, and expostulate with Lazarillo about it. But he, with an eye to the splendid material advantages of his lot, is not the man to look upon the dark side of things, and thus the author rounds off, by a masterly stroke, his perfect delineation of a thorough and thoroughly consistent *pícaro*.

As its title indicates, the principal object of this paper is to give an outline of the "Lazarillo de Tormes," bringing into relief a few of the many strokes of humor and satire in which it abounds. But it will, I think, not be out of place, if I pursue the subject a little further, and sketch in a few words the career of this new type in literature.

When first published, it found immediate and enthusiastic favor. In the very next year a new edition, with an imitated continuation, appeared. Translated into French, 1561, it went through many editions in its foreign dress. Editions appeared in Milan, Bergamo, Rome, Venice. It was translated into all European languages, including English. It became for more than a century a fashionable type in Spain. Mateo Aleman, in his "Guzman de Alfarache" (1599), varied the type by uniting prosy moralizings to scandalous adventures, with the professed object of giving object lessons in morality. Espinel, in his "Marcos de Obregon" (1678), gives an account of his own adventures as a soldier in Flanders. The "Gran Tacaño" of Quevedo (1626) is of the same type as the Lazarillo, and is perhaps the best of its successors. Finally, omitting others, Cervantes uses it as a model in some of his works.

Passing over into England, it served as a prototype for the first English rogue story, Nash's "Life of Jack Wilton" (1594). The works of Fielding and Smollett are among its lineal descendants, and we find Lazarillo appearing again in the "Artful Dodger" of Dickens.

In France, Scarron's "Roman Comique" (1651), the story of a troupe of strolling actors, and perhaps the first real French novel of character, bears clear evidence of its influence. It was left for Le Sage, in "Gil Blas" (1715), to widen immensely the scope of the rogue story as a criticism of life; but, I think, without surpassing the masterly delineations of the original Lazarillo. So much is Le

Sage indebted to his Spanish predecessors for the frame-work of his masterpiece that it was at first asserted that he had borrowed it wholly from Espinel's "Marcos de Obregon," an assertion which the Padre Isla improved upon in the preface to his translation of "Gil Blas" into Spanish, that he was but restoring it to its Spanish original. And, lastly, the new type bore fruit in Germany, in Grimmelshausen's "Abenteuerlicher Simplicissimus" (1659).

We see in all this a remarkable instance of the force of literary fashions. We see how a new type, developed out of the literary history of the past, and the circumstances of a certain period of history, by the genius of an individual writer, is copied, varied, extended, and enlarged throughout the centuries that follow. But its influence goes still further. One of the most striking features of the new type was its vivid realism, and I must not omit to say, in closing, that to "Lazarillo" and its descendants literature is largely indebted for this feature of realism, which is bound to be in one form or another a permanent one in the history and development of prose fiction.

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## NATURAL SCIENCE SECTION.

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*ADDRESS OF HONORARY PRESIDENT, R. RAMSAY WRIGHT,  
M.A., B.Sc., TORONTO.*

ROME, March 30th, 1900.

Gentlemen,—Your Secretary has no doubt informed you how it is that I come to be so far from the scene of my duties to-day. I fear there is only one of them which I can undertake to discharge at all—that of opening your meetings by a short address—and this must be determined in its character not so much by consideration of usefulness to your Association, as of the restricted scientific activity which a year of freedom from educational duties, after a quarter of a century of teaching, has brought with it.

I had determined before leaving for Europe to devote a considerable amount of my leisure in the interests of the Biological Museum, studying wherever possible, methods of exposition and illustration, and acquiring in the different European centres specimens and material for filling up the very numerous gaps which exist in our collections. I have been greatly assisted in the latter by the kindness of some prominent citizens of the Province who enabled me to spend some \$1,300 for this purpose, and I need hardly say that the personal selection of the specimens has resulted in a much more judicious expenditure of the money than would otherwise have been possible. The contents of a naturalist's stores vary so much from time to time, with the activity of the collectors with whom they have relations, with the colonial relations of the country in which they are situated, with the scientific expeditions which it has sent out, etc., that a personal visit is essential to utilize them to the best advantage.

The function which I hold the Biological Museum should perform is the illustration of the teaching in the Biological Department, in

such a way that the student by his own efforts there can materially add to the results which he obtains from the laboratory and lecture room. The classification, anatomy, embryology, distribution in space and time of the various groups of animals and plants should be illustrated, as well as the problems of general biology wherever possible. It is not possible nor desirable in a small educational museum to accumulate long series of species such as are necessary for the National Museums at London, Washington, Berlin, etc: it suffices if the chief genera are represented, and if in some one or more groups, the limits of specific variation within a single genus be illustrated. Nor would it be possible to illustrate thoroughly the Fauna and Flora of the whole province within the space at our disposal: that is rather the function of the future Provincial Museum, which some day we may hope to see erected in our midst.

The best example of the educational museum I know of is the so-called Index Museum in the Natural History Department at South Kensington. It is situated in the magnificent Entrance Hall and its large alcoves, while the various galleries containing the collections of mammals, birds, reptiles, etc., run off in various directions. For some years it has been under the charge of Dr. Ridewood who has made most of the preparations himself. The plan adopted is to show by examples the principles of classification adopted in any group, then to illustrate the various systems of organs by wet and dry preparations, injections, dissections, etc. Each of the vertebrate classes has an alcove to itself—and progress is being made with the invertebrates, while the Central Hall is largely devoted to groups occupying a considerable amount of space in illustration, *e.g.*, of the variation of animals under domestication, of modification, of coloration in adaptation to surroundings of melanism, etc., etc.

The great studies which have been made in recent years in Museology, as it has been called, are also apparent in the various galleries. The bird gallery, for example, is already possessed of numerous "biological" groups from the various orders, while some of the families, like that of the humming-birds, are already illustrated in the same admirable way which has been adopted in the case of the classes, so that "he who runs may read."

While in London I succeeded in having the Biological Department placed upon the list of those few institutions which may from time to time receive duplicates from the British Museum. Under



this arrangement I was enabled to spend several days selecting from the remains of the challenge collection numerous specimens which will be very valuable to us. Among these, *e.g.*, was a small collection of dinornis bones hitherto unrepresented in the museum. Again, with the kind co-operation of Mr. H. S. Woodward I was enabled to select a number of duplicates from the fossil vertebrata which will help materially in illustrating the phylogeny of the vertebrates. I still propose to spend some time in Kensington with the object of facilitating some museum work which I shall undertake on my return to Toronto in July.

Cambridge I visited in June shortly after arriving in England. It was the occasion of Sir G. Gabriel Stokes' Jubilee—a magnificent celebration in which universities of all parts of the world took part. While there I succeeded in obtaining one rarity which can hardly be said to come into the Natural History market—a fine specimen of *Lepidosiren* from those almost inaccessible regions at the source of the Amazon where Mr. Graham Kerr—to whom we owe the specimen—penetrated on two occasions with the object of studying its development.

The chief purchases I made in England were, first, at Weymouth, where I expended a donation from Mr. B. E. Walker on cases of interesting fossil forms—largely reptilian—from various sources and including *lariosaurus*, *neusticosaurus*, *megalogaumus*, *pleodachylus*, etc., etc., which we have not hitherto been able to illustrate.

Again, in London I obtained through Mr. Gerrard some varieties in mammals which are not always to be had, such as the Hard-Vaark (*Orycteropus*), from the Cape; the Wombat, from Australia; a beautiful head of the Beisa Antelope, from South Africa. It is impossible to illustrate this group in a small museum, except by heads and horns; a young elephant's skull and numerous other interesting things. I also obtained from him, in view of the desirability of improving the æsthetic aspect of the museum, and of illustrating the enormous range of variation to be met with in a single family, a very complete and beautiful series of *Birds of Paradise*, including *Paradisornis Rudolphi* and other varieties. These I purchased from a donation by Messrs. Hiram Walker & Sons.

Later in the year, while in Germany, I visited Dresden, Berlin, Leipzig and Halle, making considerable purchases in the last mentioned town. The museum at Dresden is one of the most beauti-

fully arranged I know of. Dr. Meyer, the director, has been at the greatest pains in devising cases of iron and glass alone, which close tightly and offer no obstruction to the observer. Our own cases are made after the model of his; but he has even improved upon that model recently by concealing all the hinges and locks, so that only smooth surfaces with no projections are to be found on the outside.

At Halle I purchased a large number of genera of vertebrates to fill up serious gaps in the cases, some of more scientific interest, others like a series of humming-birds, intended to replace those which had been injured by the university fire, and which rather detracted from the general appearance of the museum by their shabbiness. Again, a series of eggs and nestlings from all parts of the world will improve those cases devoted to the illustration of the birds, which already have begun to assume a very interesting aspect owing to Mr. B. B. Bushley's preparations. It would weary you if I were to recite further the novelties in invertebrates which I obtained; but it is interesting to note that it is now possible to buy in Europe hexactinetted sponges, which have only been described for a few years. This is due to the awakening of interest in scientific work in Japan, which extends itself also to the commercial aspect of natural history.

Some of the most interesting invertebrate preparations I bring back with me are those prepared by myself in Naples, at the Zoological Station, where, through the kindness of Dr. Anton Dohrn, and of his assistant in such matters, Signor Lo Bianco, I was enabled to study thoroughly the methods by which beautiful preparations of sephonophora and other delicate marine invertebrates can be obtained. Paper instructions are hardly sufficient without the hints of the expert preparator to arrive at the degree of excellence which has there been reached. I also took the opportunity, while at Naples, of working through the Annelids and Teleosts from a systematic aspect, with the notion that such experience might be of use at some future time in the Canadian Marine Station.

Finally, here at Rome, I have had the pleasure of realizing how strong has been the renascence in biology of recent years, due to a great extent to the influence of the zoological station, in illustration of which I should like to occupy the remainder of the time at

my disposal with something of a less personal and more generally interesting character.

I had the opportunity, the other day, of looking through a series of preparations with Professor Grassi in illustration of his discovery that mosquitoes of the genus *Anopheles* are the definite hosts of the malaria parasite which passes through its phases of asexual multiplication in the blood of man.

You are aware that in many different kinds of animals the red blood cells are apt to be invaded by cell-parasites belonging to the class of the Sporozoa—so-called Hæmosporidia: they have been found in amphibia, reptiles, birds and mammals, and in the latter cause very definite diseases such as Texas fever in cattle, and the different types of malaria in man. Within the last few years it has been possible to recognize three different species of parasites at least, which are associated with as many different types of fever, the tertian and quartan agues, which are common in Italy in the spring, and the more pernicious æstivo-autumnal type which occurs later in the year. But all of these are characterized by the penetration of an amœboid parasite into the red blood-cells, which increase in size at the expense of their substance, and after a definite fever—48 hours in tertian fever, 72 in quartan—divides into a greater or less number of amœbutæ which are poured out into the blood-current, and which hasten to invade new blood-cells, to grow and multiply in the same fashion. The access of fever coincides with this period of asexual reproduction, and the intervening period of apyrexia with the growth of the parasites.

In addition to the amœbutæ, which are destined to carry on this asexual method of reproduction, there are others which take on a sexual function and become male or female sexual cells. The former had been observed nearly twenty years ago by Laveran, but the first satisfactory interpretation of their nature and the first observation of the process of fecundation of the female by the male elements was made by Mr. Macallum (now of Johns Hopkins University, but a graduate in Arts of the University of Toronto) in the blood of the crow. This he demonstrated very satisfactorily to Lord Lister and others in the Biological Department on the occasion of the Toronto meeting of the British Association. Such fertilized sexual elements are incapable of

further development in the blood of the host, but must arrive in the intestine of a special blood-sucking arthropod or find suitable conditions for further development. So far it has been possible only in a few cases to establish the relationship between the two hosts, but in Texas fever of cattle the definite host is known to be a tick (*Rhipicephalus annulatus*) in South African cattle fever, the *Tsetse-fly*, in the malaria of birds, various mosquitoes, species of *Culex* and now, thanks to Grassi's researches, it has been demonstrated that only mosquitoes of the genus *Anopheles* are capable of playing this rôle in regard to human malaria.

Before describing the future stages of development of the Sporozoon let me cite the following interesting particulars :

1. That the fecundation described may be postponed till arrival in the intestine of the mosquito.

2. That the difficult types of malaria may be communicated from man to man by means of the inoculation of a very little malarial blood.

3. That quinine, which acts like a charm in killing the amœbutæ, does not appear to have the same effect on the sexual elements when formed, and that amœbutæ, which have been able to escape its influence in the bone-marrow or spleen, may, after a lapse of months, be recalled into activity by some sudden less resistant condition of the system, such as a sudden chill.

4. That so far no toxins or immunising antitoxins have been discovered, though some drugs, like arsenic, euchinin and methylene blue, seem to have a partial immunising effect.

After a short free life in the stomach of the mosquito the fertilized cell parasite soon penetrates the wall of the intestine and shows traces of a surrounding capsule, which grows thicker as the contained protoplasmic mass increases in size. The originally single nucleus breaks up directly, and the protoplasm arranges itself in little globular masses around the chromatin fragments, with the exception of a mass of undivided protoplasm in the middle, so that we have now the familiar picture of the *sporocyst* stage of the sporozoon with its capsule, *sporoblasts*, and unsegmented remaining protoplasm.

Eventually the sporoblasts give rise to elongated vermiform *sporozoites*, so that from a surface view the ripe capsule presents a very characteristic appearance, while in sections one still sees

the undivided protoplasm with the closely packed sporozoites everywhere surrounding it. When the cyst is quite mature the wall bursts, the sporozoites escape into the body cavity, but are chiefly carried off towards the salivary glands where they accumulate both in the cells and finally in the lumina in the countless numbers.

The mosquito is now in a condition to communicate malaria, because if the skin is penetrated by the bite and the saliva injected into the wound, there are thereby introduced into the blood-current numerous sporozoites which do not delay to penetrate the blood cells and begin the cycle of intra-cellular multiplication which has already been described.

It appears, therefore, that though it is conceivable that malaria should be directly communicated as by mechanical inoculation from a sick person to a healthy one through the agency of mosquitoes, yet the indirect way involving a change of hosts and an alternation of different methods seems to be as necessary to the perpetuation of the species, as it is in other heterogenic forms, like the distome and tapeworm.

It must not be supposed that the discovery of this alternation of generations was made without being led up to by other discoveries of similar phenomena in other mammals and in birds. Ross, at the suggestion of Manson who had found that mosquitoes enter into the life-circle of the *filaria hominis*, caused specimens of culex to bite infected birds, and was able to follow to a certain extent the development of the malarial parasite within them. Again, as Celli observes, apart from pneumonia of malarial infection which seems to point directly towards the mosquito theory, there exist in the malarial countries like the Roman campagna, customs which have been handed down and seem to indicate the connection more pointedly, as well as sayings which refer to the co-existence of mosquitoes and malaria. The anointing of the exposed parts of the body with ointments containing garlic and other strongly smelling materials, the wearing of bags of camphor and garlic round the neck, smoking, the use of smudges in the houses—all specifically intended to keep away fever—may be cited among these customs.

The old notion that the malarial material of infection was local and resident in the soil, and could only rise to a certain height



above it, is sufficiently accounted for by the limited distribution of Anopheles, and its restriction to such marshy lands where the larvæ can develop, while the habits of the people of the campagna, *e.g.*, quitting work at sundown, living in towns on the scattered hills of the district, or else in houses which present to the outside an almost blind wall, while the rooms face an inner court, show how empirically methods had been arrived at to avoid infection.

It is interesting to note that in malarial districts a certain immunity has been acquired both by man and beasts. Dutch cows imported into the Roman campagna died off as do cattle taken within the Tsetse region in South Africa. Perhaps this is due to the elimination of the less resistant individuals, and the perpetuation of those more naturally immune.

As I said before no method has been yet devised to confer artificial immunity, but the establishment of the fact that the mosquitoes play an important rôle in the cause and spread of the disease, suggests various methods of meeting this terrible scourge, which renders whole districts, especially in South Italy and Sardinia, almost uninhabitable and unproductive. In the first place, the adoption of proper methods of drainage is at once beneficial by reducing the number of places in which the anopheles larvæ can develop; secondly, the prompt treatment of patients infected with quinine which, if given sufficiently early, prevents the formation of the sexual elements of the parasite, and therefore eliminates an essential element in the cycle; thirdly, the isolation of patients suffering from malaria and their removal to an Anopheles-free district, so that they shall not, through the agency of mosquitoes, serve as a starting-point for the spread of the disease; and fourthly, the adoption of metallic screens for doors and windows, which must have the effect of reducing the chances of infection.

Otherwise expressed, these methods tend to reduce the number of mosquitoes, to lessen their opportunities for biting healthy and especially sick people, and in the case of the latter to prevent the formation in their blood of the sexual forms of the malarial parasite. I have said enough to show how a group of animals like the sporozoa which (with the exception, perhaps, of the *Microsporidia*, which cause the disastrous Pebrine of silk-worms) had merely an academic interest when most of you studied biology, has through

the researches of the last decade been shown to have a vast economical importance.

Perhaps at some future time I may have an opportunity of demonstrating to you some of the various specimens and phenomena to which I have referred, but in the meantime I must content myself with expressing the hope that the meeting of the Association will be more than ordinarily fruitful, and that the accident of my absence will not be interpreted as an indication of want of interest in its aims, one of the most important of which is in my opinion the preservation of contact between the science-teaching of the secondary schools and of the University.

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*LOCAL NATURE OBSERVATIONS.*

E. I. HILL, B.A., GUELPH.

This address was largely an account of the "nature observation" work that has been done in the Province of Nova Scotia through Dr. A. H. Mackay, Superintendent of Education. The speaker quoted from the reports of several inspectors who testified to the beneficial effect the plan had had upon the nature study and the general work of the school.

Copies of the following circular were distributed among the members of the Association. A supply of these had been kindly furnished by Dr. Mackay.

## LOCAL "NATURE" OBSERVATIONS.

This sheet is provided for the purpose of aiding teachers to interest their pupils in observing the times of the regular procession of natural phenomena each season. First, it may help the teacher in doing some of the "Nature" lesson work in the Course of Study; secondly, it may aid in procuring valuable information for the locality and province. Two copies are provided for each teacher who wishes to conduct such observations, one to be attached to the school register, so as to be preserved as the property of the section for reference from year to year; the other to be sent in with the Return to the Inspector, who will submit it to the Superintendent for examination and compilation if desirable.

What is desired is to have recorded in these forms, the dates of the first leafing, flowering and fruiting of plants and trees; the first appearance in the locality of birds migrating north in spring, or south in autumn, etc. While the objects specified here are given, so as to enable comparison to be made between the different sections of the Province, it is very desirable that all other local phenomena of a similar kind be recorded. Each locality has a *flora*, *fauna*, *climate*, etc., more or less distinctly its own; and the more common trees, shrubs, plants, crops, etc., are those which will be most valuable from a local point of view in comparing the characters of a series of seasons.

Teachers will find it one of the most convenient means for the stimulation of pupils in observing all natural phenomena when going to and from the school, some of the pupils radiating as far as two miles from the school-room. The "nature study" under these conditions would be mainly undertaken at the most convenient time, thus not encroaching on school time; while on the other hand, it will tend to break up the monotony of school travel, fill an idle and wearisome hour with interest, and be one of the most valuable forms of educational discipline. The eyes of a whole school daily passing over a whole school district would let very little escape notice, especially if the first observer of each annually recurring phenomenon would receive credit as the first observer of it for the year. The observations will be accurate, as the facts will have to be demonstrated by the most undoubted evidence, such as the bringing of the specimens to school when possible or necessary.

To all observers the following most important, most essential principles of recording are emphasized: Better no date, no record, than a wrong one or a doubtful one. Sports out of season due to very local conditions, not common to at least a small field, should not be recorded except parenthetically. The date to be recorded for the purposes of compilation with those of other localities, should be the first of the many of its kind following immediately after, etc. For instance, a butterfly emerging from its chrysalis in a sheltered cranny by a southern window in January, would not be an indication of the general climate, but of the peculiarly heated nook in which the chrysalis was sheltered; nor would a flower in a semi-artificial, warm shelter, give the date required. When these sports out of season occur, they might also be recorded, but within a parenthesis, to indicate the peculiarity of some of the conditions affecting their early appearance.

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These schedules should be sent in to the Inspector with the annual school returns in July, containing the observations made during the whole school year, and back as far as the preceding July (if possible), when the schedule of the previous school year was necessarily completed and sent in.

A duplicate copy of the schedule of observations should be securely attached to the school register for the year, so that the series of annual observations may be preserved in each locality.

Remember to fill in carefully and distinctly the date, locality, and other blanks at the head of the schedule on the next page; for if either the date, or the locality, or the name of the responsible compiler should be omitted, the whole paper is worthless and cannot be bound up for preservation in the volume of the Phenological Observations.

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By the aid of the table given at the top of pages 206 and 207, the date, such as the 24th of May, for instance, can be readily and accurately converted into the annual date, "the 144th day of the year," by adding the day of the month given to the annual date of the last day of the preceding month (April in this case), thus:  $24 + 120 = 144$ . The annual date can be briefly recorded, and it is the only kind of dating which can be conveniently averaged for phenological studies. When the compiler is quite certain that he or she can make the conversion without error, the day of the year instead of the day of the month will be preferred in recording the dates.



## PHENOLOGICAL OBSERVATIONS, CANADA.

For the year ending July, 190 .

Province.....County.....District .....

Locality or School Section.....No.....

[The estimated length and breadth of the locality within which the following observations were made..... × .....miles. Estimated distance from the sea coast.....miles. Estimated altitude above the sea level.....feet.

Slope or general exposure of the region .....

General character of the soil and surface.....

Proportion of forest and its character .....

Does the region include lowlands or intervalles? and if so, name the main river or stream.....Or is it all substantially highlands? .....

Any other peculiarity tending to affect vegetation?.....]

The most central Post-office of the locality or region .....

NAME AND ADDRESS OF THE TEACHER OR OTHER COMPILER OF  
THE OBSERVATIONS, RESPONSIBLE FOR THEIR ACCURACY.

When first  
Seen.

When be-  
coming  
common.

## WILD PLANTS, ETC.

1. Alder (*Alnus incana*), catkins shedding pollen .....
2. Aspen (*Populus tremuloides*), " .....
3. Mayflower (*Epigaea repens*), flowering.....
4. Violet, Blue (*Viola cucullata*), " .....
5. Violet, White (*V. blanda*), " .....
6. Red Maple (*Acer rubrum*) " .....
7. Bluets (*Houstonia caerulea*), " .....
8. Field Horsetail (*Equisetum arvense*), shedding spores.....
9. Dandelion (*Taraxacum officinale*), flowering .....
10. Alder's Tongue Lily (*Erythronium*), " .....
11. Hepatica (*H. tribola*, etc.), " .....
12. Gold Thread (*Coptis trifolia*), " .....
13. Strawberry (*Fragaria Virginiana*), " .....
14. " " " fruit ripe .....
15. Wild Red Cherry (*Prunus Pennsylvanica*), flowering .....
16. " " " fruit ripe .....
17. Blueberry (*Vaccinium*, Can. and Penn.), flowering .....
18. " " " fruit ripe .....
19. Tall Buttercup (*Ranunculus acris*), flowering .....
20. Creeping Buttercup (*R. repens*), " .....
21. Clintonia (*Clintonia borealis*), " .....
22. Painted Trillium (*Erythrocarpum*), " .....
23. Star flower (*Trientalis Americana*), " .....
24. Lady's Slipper (*Cypripedium acaule*), " .....
25. Marsh Calla (*Calla palustris*), " .....
26. Indian Pear (*Amelanchier Canadensis*) " .....
27. " " " fruit ripe.....
30. High Blackberry (*Rubus villosus*), flowering .....
31. " " " fruit ripe .....

PHENOLOGICAL OBSERVATIONS—*Continued.*

[Day of year corresponding to the last day of each month].				When First Seen.	When becom- ing common.
Jan. 31.	April 120.	July 212.	Oct. 304.		
Feb. 59.	May 151.	Aug. 243.	Nov. 334.		
Mar. 90.	June 181.	Sept. 273.	Dec. 365.		
(For Leap years increase each number except that for January by 1.)					
32. Pale Laurel ( <i>Kalmia glauca</i> ), flowering .....					
33. Sheep Laurel ( <i>K. angustifolia</i> ), “ .....					
34. Pigeon Berry ( <i>Cornus Canadensis</i> ), flowering.....					
35. “ “ “ fruit ripe .....					
36. Blue-eyed Grass ( <i>Sisyrinchium</i> ) flowering .....					
37. Twinflower ( <i>Linnaea borealis</i> ), “ .....					
38. Butter and Eggs ( <i>Linaria Canadensis</i> )“ .....					
39. Yellow Rattle ( <i>Rhinanthus</i> ), “ .....					
40. Pitcher Plant ( <i>Sarracenia</i> ), “ .....					
41. Heal-All ( <i>Brunella Vulgaris</i> ) “ .....					
42. Great Willow-Herb ( <i>Epilobium angustifolium</i> ), flowering ....					
43. Common Wild Rose ( <i>Rosa lucida</i> ), flowering .....					
44. Common St. John's Wort ( <i>Hypericum perfoliatum</i> ), flowering.					
45. Fall Dandelion ( <i>Leontodon autumnale</i> ), flowering.....					
CULTIVATED PLANTS, ETC.					
46. Cherry ( <i>Prunus cerasus</i> ), flowering .....					
47. “ “ fruit ripe .....					
48. English Hawthorn ( <i>Cratægus oxyacantha</i> ), flowering .....					
49. American Hawthorns ( <i>Cratægus</i> —), “ .....					
50. Plum ( <i>Prunus domestica</i> ), flowering.....					
51. Apple, early flowering ( <i>Pyrus</i> ), “ .....					
52. “ late “ “ “ .....					
53. Red Currant ( <i>Ribes rubrum</i> ), “ .....					
54. “ “ fruit ripe .....					
55. Black Currant ( <i>R. nigrum</i> ), flowering .....					
56. “ “ fruit ripe .....					
57. Lilac ( <i>Syringa vulgaris</i> ), flowering ... ..					
58. Potato ( <i>Solanum tuberosum</i> ), “ .....					
59. Timothy ( <i>Phleum pratense</i> ) “ .....					
60. White Clover ( <i>Trifolium repens</i> ), flowering .....					
61. Red Clover ( <i>T. pratense</i> ), “ .....					
62. Wheat ( <i>Triticum vulgare</i> ), “ .....					
63. Oats ( <i>Avena sativa</i> ) “ .....					
64. Buckwheat ( <i>Fagopyrum esculentum</i> ) “ .....					
65. (a) Earliest and (b) latest full leaving of trees, etc., in spring....				(a)	(b)
Name the species.					
FARMING OPERATIONS, ETC.					
66. Plowing begun .....					
67. Sowing.....					
68. Planting of Potatoes.....					
69. Shearing of Sheep .....					
70. Hay Cutting .....					
71. Grain Cutting.....					
72. Potato Digging .....					

PHENOLOGICAL OBSERVATIONS—*Continued.*

[Day of year corresponding to the last day of each month.]				
Jan. 31.	April 120.	July 212.	Oct. 304.	
Feb. 59.	May 151.	Aug. 243.	Nov. 334.	
Mar. 90.	June 181.	Sept. 273.	Dec. 365.	
(For Leap years increase each number except that for January by 1.)				

METEOROLOGICAL PHENOMENA.		(a)	(b)
73. Opening of (a) Rivers, (b) Lakes without currents	.....		
74. Last snow (a) to whiten ground, (b) to fly in air	.....		
75. Last Spring Frost (a) "hard," (b) "hoar"	.....		
76. Water in Streams, Rivers, etc., (a) highest, (b) lowest	.....		
77. First Autumn Frost, (a) "hoar," (b) "hard"	.....		
78. First Snow (a) to fly in air, (b) to whiten ground	.....		
79. Closing of (a) Lakes without currents, (b) Rivers	.....		
80. Number of Thunder Storms (with dates of each)	.....		
Jan. ....	Feb. ....	Mar. ....	Apr. ....
May ....	June ....	July ....	Aug. ....
Sept. ....	Oct. ....	Nov. ....	Dec. ....

	Going North or coming in Spring.	Going South or Leaving in Fall.
MIGRATION OF BIRDS, ETC.		
81. Wild Duck migrating	.....	
82. Wild Geese migrating	.....	
83. Song Sparrow ( <i>Melospiza fasciata</i> )	.....	
84. American Robin ( <i>Turdus migratorius</i> )	.....	
85. Slate-colored Snow Bird ( <i>Junco hiemalis</i> )	.....	
87. Meadow Lark ( <i>Sturnella magna</i> )	.....	
88. Kingfisher ( <i>Ceryle alcyon</i> )	.....	
89. Yellow Crowned Warbler ( <i>Dendroica coronata</i> )	.....	
90. Summer Yellow Bird ( <i>Dendroica aestiva</i> )	.....	
91. White Throated Sparrow ( <i>Zonotrichia alba</i> )	.....	
92. Humming Bird ( <i>Trochilus Colubris</i> )	.....	
93. King Bird ( <i>Tyrannus Carolinensis</i> )	.....	
94. Bobolink ( <i>Dolichonyx oryzivorus</i> )	.....	
95. American Goldfinch ( <i>Spinus tristis</i> )	.....	
96. American Redstart ( <i>Setophaga ruticilla</i> )	.....	
97. Cedar Waxwing ( <i>Ampelis cedrorum</i> )	.....	
98. Night Hawk ( <i>Chordeiles Virginianus</i> )	.....	
99. Piping of Frogs	.....	
100. Appearance of Snakes	.....	

## OTHER OBSERVATIONS AND REMARKS.

*SCHOOL GARDENS.*

W. H. MULDREW, B.A., D.PAED., GRAVENHURST, ONT.

Although this topic had been laid down in the official programme, the speaker explained at the outset that his subject had little in common with gardening in the ordinary sense, dealing, as it did, rather with the intellectual than the utilitarian or æsthetic aspects of the garden, and pertaining mainly to that department of school botany which most nearly approaches Forestry. The speaker was quite in harmony with the claims previously advanced by Messrs. Hill and Hamilton, that the Science Departments of our schools should investigate as well as teach, and proposed to illustrate how such could be done with advantage along at least one definite line.

The problems of practical forestry were being brought very near to thoughtful observers in Ontario. What were the schools of to-day doing to equip the next generation with the knowledge and the interest necessary to ensure their intelligent solution? Arbor Day, now permanently established in Public Schools, and the teaching of Botany in High Schools must exert a wholesome influence in this direction; but these forces needed to be broadly supplemented under the careful supervision of the teachers if the best results were to be obtained. To show that such was quite practicable under ordinary conditions, the speaker described briefly what had been done within a few years in connection with one of our smaller High Schools by the co-operation of trustees, teachers, and pupils.

Beginning with a school ground characterized only by a rather unusual extent, and an almost total absence of vegetation, a systematic attempt had been made to relieve the monotony of the scene by planting trees and shrubs in as great profusion as circumstances would permit, and in such form as to permanently mark out walks and playgrounds. This work had been carried out largely by the boys, stimulated by a nominal grant per tree from the Board to the athletic funds, and by an occasional part holiday. In spite of some discouragements resulting from an unkind soil and unfavorable seasons, the work progressed until several hundreds of

specimens had become fairly established and the number of species represented had suggested a complete collection of those native to the district. Already more than half the indigenous trees and shrubs of the locality were here to be found, and thus a rude, yet effective, arboretum was approaching completion. While the specimens were of necessity, in most cases, immature and still struggling with a new environment, so that their appearance was by no means striking, they already afforded great assistance to the practical study of Botany, since the development of foliage, flowers and fruit could be readily followed from day to day.

The speaker dwelt upon the value of identification and naming of species in sustaining the interest of learners, and recommended the use of keys or indexes based upon the leaf characters, and prepared, preferably by the Science Master, to suit the forest growth peculiar to each district. This suggestion was illustrated by the distribution among the members of the section of printed copies of such an index, which had justified itself by some years of service in the hands of beginners. Owing to the short time at his disposal the speaker was unfortunately obliged to omit many of the details of his very interesting topic; but the address aroused interest in a subject well calculated to be of practical benefit to the Science masters. The thanks of the Association are due to Dr. Muldrew for his valuable paper, and also for copies of his admirable "Index" kindly distributed.



## CLASSICAL SECTION.

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*THE RELATION OF ENGLISH GRAMMAR TO GREEK  
AND LATIN.*

S. F. PASSMORE, M.A. BRANTFORD.

In selecting a subject for a paper to be read before a classical association, one must be guided by several considerations. We have in our membership men whose profession leads them to a study of the higher branches of classics, to soar aloft into the ethereal regions, as it were, of classic lore, while others of us are daily occupied in imparting knowledge in the more elementary and fundamental principles, and from a rather terrestrial point of view. To choose a subject, at the same time entertaining to the former class, and helpful to the latter, is not an easy matter. Therefore should this paper appear to some to be too elementary, you will be good enough to bear with it when I say that it deals largely with points that concern the every-day teaching in our High Schools and Collegiate Institutes, thoughts, in fact, suggested by the difficulties in the class-room, especially of junior scholars. My main object in this paper is to point out the chasm between the knowledge of grammar in the average junior, and what is necessary for a proper and intelligent study of classics.

As the same difficulties appear in every class of the same standard year after year—one class passes on, another takes its place with the same obstacles to be overcome—the question arises, Are we, as classical masters, fair in what we expect from beginners? Surely pupils will learn as they are taught, and their teachers in turn must teach according to the method adopted in teaching English in the schools in which they received their education. If we are not fair, one may in reason ask, "Why are we not?" If we are right and fair in the stand we take, then there is something radically wrong in the teaching of English in our High Schools. Some English masters will tell you plainly that there is no such thing as English grammar. In answer I may state that the Education Department says there is, in the fact that a paper is set every year styled English Grammar and Rhetoric. Some who say that English grammar does not exist, will say also that the only

guide in speaking or writing is the usage of good speakers and writers. This is true, but it does not go far enough. These persons abhor anything in the form of rules, but why not state that from observing the usage of good writers and speakers, such a form of expression should be used, or such a case or number, for example, should be employed. Let us suppose an instance. A pupil does not know for certain whether "Let you and I endeavor," or "Let you and me endeavor," is correct. What must he do? Quite simple. Let him travel to the nearest public library and read a few of the best works of literary men, and then hear a few good public speakers, and draw his conclusion. Rapid transit of thought! Wonderful advancement! The searcher for knowledge listens to a discourse by a certain bishop, and his lordship in the course of his sermon uses the expression, "Let you and I endeavor." Therefore that must be correct. I myself heard a bishop in Quebec Province use this expression, and he certainly was an educated man. In this instance his lordship was clearly wrong, educated as he was. How then are we to know? There must be some rule. Again, how many times we hear the expressions, "Between you and I," "My uncle took John and I for a drive." Often have I been pained at hearing English masters say, "It don't matter," "I know it ain't right," and such like. There certainly must be some set rule to decide us as to the correctness of these expressions, and the intelligent application of the rule will enable a person to use his language with much greater security and satisfaction.

The greatest obstacle to progress is, perhaps, the very vague idea the pupils have of "tense." If the pupils possess a reasonable idea of "tense" in English, it is a matter of very little difficulty to show the difference between English and Latin, but when a teacher tries to build on the pupils' English foundation, and finds there isn't any—what must be done? It is heartless to scold a child for something for which he is not accountable; but why was not that child taught to distinguish the various forms of the English verb? Because the child's teacher in the High School was not drilled in it. And why was not the teacher drilled in it? Because he was not to be examined in it by the Education Department. Examinations, the modern educational idol, require such blind worship that many a costly sacrifice is offered on their altar. "*O tempora! O mores!*" The departmental examinations, no doubt, regulate the course of teaching, and properly so. Therefore, in the language of Cicero, "*Causa*

*qua sit videtis nunc quid agendum sit considerate.*" We must, however, leave this avenue of thought and take our position now before a class of beginners struggling with the Latin "tenses." We find it most desirable to use no grammatical term that we do not ourselves understand, and to present every change in such a light that the pupil will grasp the meaning and feel interested in his work as something tangible. In my classes I take the following classification of tenses (the speaker here used the blackboard to illustrate at length), the three natural divisions of time, and three subdivisions of each, nine in all; and after drilling the class in the English distinctions, I adopt the Latin verb, pointing out how the English, with nine subdivisions, corresponds to the Latin with six, being especially careful to make clear the meaning of "Imperfect" and the bearing of the word. The hardest tense to grasp is the Latin "perfect" with its two translations.

So far we have confined ourselves to the "active voice." The obstacle of "tense" being removed, the stream of thought flows on with comparative smoothness till we come to the "passive voice." Two dams are here encountered—one easily overcome, the other attended by considerable difficulty. The former is a confusion of the terms "past" and "passive." A little patience is all that is necessary, though we shall probably find that more explanations than we expected are necessary. It may be that we shall be compelled to dwell a short (or long) time on the meaning of "transitive" and "intransitive," applied as grammatical terms. The first three tenses of the passive voice being mastered, the compound forms of the perfect tenses alone remain.

The attention of the pupil is called to the fact that the next three tense forms are compound, consisting of two words, the verb *sum* and the perfect participle passive. Before considering the formation and use of the latter the master, perhaps, will say that he will review the class on the participle as found in English. The review does not last long, for in most instances one will find that this review is generally first view. But, some one may say, "You are too exacting." Possibly so, but is it too much for a child from 12 to 15 years of age to know which is correct, "I have went to school," or "I have gone to school," "I have seen," or "I have saw," "The river has raised two feet," or "The river has risen two feet"? Not only should the child know how to use the correct form, but he should know why it is correct. He should be taught to observe the difference in form as well as meaning in the simple past indefinite and the perfect, to mark well the importance of the perfect

participle in the formation of the perfect tenses of the indicative. He will then intelligently know why "I saw" is correct, and "I have seen," and "If I had gone," and not "If I had went." Why should the child be kept groping in the dark till the benign rays of Latin grammar illumine his path in response to the mandate, "*Lux fiat*"? After the participles are understood we are prepared to consider the formation and use of the infinitive mood in its proper place. To the average pupil who has not had the privilege of studying Latin the infinitive is an almost unknown subject, less familiar even, if that be possible, than the participle. It surely is not too much to expect that a scholar that has passed the Entrance Examination and has spent the greater part of a year in a High School should know when he is correct and why in choosing between {<sup>Who</sup><sub>Whom</sub>} do you think {<sup>I am?</sup><sub>me to be?</sub>} I thought John and {<sup>he</sup><sub>him</sub>} to be brothers. I understood John and {<sup>he</sup><sub>him</sub>} to be applicants.

It is the lack of such elementary training in English that very often makes Latin to the beginner very dry, difficult and discouraging—discouraging, I say, for the progress seems so retarded, so much is new that really should be already familiar. We, classical masters, however, have the satisfaction of knowing that we are laying the foundation for a literary education, and even though another share the credit, we, individually, have the consoling words of Horace, "*Non omnis moriar.*"

It is just a question whether the marks for faulty English in translating Latin and Greek should be deducted from the marks obtained in Classics or English. It seems rather hard to reject a candidate in Classics because his education in English has been neglected—I mean under our present slavish system of exams. where some people apparently take delight in pitting department against department in results. It is to be regretted that so much importance is attached to the mere passing of an examination. Pupils frequently have the idea that anything but what is definitely prescribed in black and white is really useless, and, what is worse, they sometimes think that in condescending to prepare their work they are paying a compliment to their trainers. Will the day ever dawn when education will be sought for its own sake, and examinations cease to be a nightmare? *Lux benigna, veni, celerrime veni.*

These are but a few thoughts out of many, and if anything of a helpful nature has been given to our masters in junior Latin, or if any suggestions will be called forth to remedy some of our existing difficulties, the writer of this paper will feel that his efforts have not been in vain.

*THE POETICAL WORK OF VIRGIL AND MILTON.*

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It has long been customary for classical scholars to compare the two great epic poets of antiquity, Homer and Virgil. It is my purpose in this paper to depart somewhat from this custom, and to compare and contrast, as far as the limits of time will permit, the position and poetical work of the great Roman and the great English epic poet.

It has been said, with much truth, that the four great epic poets symbolize four great phases of the history of mankind; that Homer is the poetical representative of the boyhood of the human race exemplified in the heroic age of Greece; that Virgil is the representative of its manhood attained in the majesty of Roman empire; that the modern world, which is separated from the ancient by Christianity as by a mountain ridge, has produced two parallel types—Dante, representing the poetical side of Catholic; Milton, the poetical side of Protestant Christianity.

The great epic poet appears only at the culmination of some important cycle of history. When any great event, or series of events, becomes impressed on the consciousness of a people in such a way as to affect their feelings profoundly or stir their enthusiasm, then is the opportunity of the epic poet. It is for him, seeing as he does the significance of these events or facts more clearly than the ordinary man, and being moved by them more profoundly, to give concrete expression to his own mind, and thus give to the people their own thoughts clarified and illuminated and adorned by his genius.

Some seven hundred years prepared the way for the poet Virgil. The city of Rome had extended her power over Italy. She had reached out an arm of conquest, first over the western Mediterranean, then over the eastern Mediterranean. It was now her business to rule the world. The franchise had been granted to all Italians, including Cis-Alpine Gaul, and the sentiment of a united Italy had arisen. The eastern war-cloud raised by Antony and Cleopatra had been dispelled at Actium. The Pax Romana followed the long period of civil turmoil. Augustus was engaged establishing



order where confusion had reigned, and in trying to restore ancient manners and morals. Virgil gave expression to the sentiment of the unity of Italy, and pictured the glories of that land in the *Georgics*. In the "*Æneid*" he gave expression to the feeling of pride in the history and destiny of the city of Rome. He is the representative poet of the Augustan age.

For Milton's work, too, there was a period of preparation. The revival of letters had quickened the intelligence of Western Europe. The Church had received a rude awakening from its lethargic condition by Luther. Nearly half of Europe had adopted the Bible as the only rule for faith and conduct. England became the land of a book, and that book the Bible. To the Englishman, heaven and hell, a spiritual world peopled with spiritual powers, good and evil enveloping him round about, had become terrible realities. Milton gave expression in "*Paradise Lost*" and in "*Paradise Regained*," to the conviction of a contest between the powers of good and the powers of evil for the soul of man. These poems, and the "*Pilgrim's Progress*," are the monuments of English Puritanism.

While Virgil is the representative of imperial Rome, under Augustus, and Milton the representative of English Puritanism, there are certain striking differences in their position, which we notice at once. Virgil was a court poet. He enjoyed the favor of a royal patron who freed him from the care of providing for his own sustenance, and enabled him to devote himself entirely to his art. His property at his death was worth half a million. Milton, on the other hand, enjoyed no patronage. It was after the Restoration, when the bodies of those whom he had served were dug up, hanged and beheaded, when Puritanism was the laughing-stock of those in power, that, after suffering imprisonment and heavy fines, at the age of fifty-two, blind, poor, solitary, neglected by his family, he began the period of poetical activity that produced "*Paradise Lost*," "*Paradise Regained*," and "*Samson Agonistes*." It was no triumphal cause that *he* celebrated. The paradise of the Puritan ideal was too truly lost.

In studying the poetical work of Virgil and Milton we shall consider it first as dealing with nature, then as dealing with man, and finally as dealing with the supernatural.

The early life of the two poets largely explains certain differences in their attitude towards external nature. Virgil was born and brought up on a farm by the Mincio. His father prospered by adding bee-keeping to his other farm work. At twelve, Virgil left

home to study, first at Cremona and Milan, then at Rome, where he was profoundly influenced by the poem of Lucretius. When we next hear of him he is back on the farm writing the "Eclogues." Milton, on the other hand, was born and bred in London. He studied there until he was sixteen, when he was sent to Cambridge University. After seven years at Cambridge we find him in the country at Horton, whither his father had retired. But even here his studious habits kept him habitually indoors.

Such being the early life of the two poets, it is not to be wondered at that Virgil is the more accurate observer of nature. Both poets see its beauties, and are moved by them; but we feel that Virgil has lived in closer contact with it; that he loves it; that he feels the unity of the life pervading it; that he, like Wordsworth, feels towards its various manifestations as towards human beings. Milton, on the other hand, did not find his way to the heart of nature, or hold close communion with it, but looked mainly at its external aspects.

Virgil in the "Eclogues" and in the "Georgics" not only delights our eye and ear as when he describes the farmer mitigating the drought of summer,

"Et cum exustus ager morientibus aestuat herbis  
Ecce supercilio clivosi tramitis undam  
Elicit; illa cadens raucum per levia murmur  
Saxa ciet, scatebrisque arentia temperat arva."

but he is also constantly suggesting an analogy between the life of nature and the life of man, as when he speaks of the "vice" being baked out of the ground, or of the arbutus being grafted with the "offspring" of the walnut, or, very frequently, by a single epithet, as the *joyful* crops. He also observes closely the animals found on the farm, reads their various dispositions and sympathizes with their pleasures and pains. The interest of the third book of the "Georgics" arises largely from the vividness with which he describes the horse's pride, the dog's fidelity, the bull's combative courage and the love of sheep and goats for their young.

If Milton was without this sympathy for animal and vegetable life he had, if anything, a keener enjoyment of the beautiful aspects of nature than Virgil. With what a sense of enjoyment do we walk with him

"By hedge-row elms, on hillocks green,  
Right against the eastern gate,  
Where the great sun begins his state,  
Robed in flames and amber light,  
The clouds in thousand liveries dight;"

or look around upon the

“ Russet lawns and fallows grey  
Where the nibbling flocks do stray ;  
Mountains on whose barren breast  
The laboring clouds do often rest,  
Meadows trim with daisies pied,  
Shallow brooks and rivers wide ;”

or at night in contemplative and serious mood walk forth

“ To behold the wandering moon,  
Riding near her highest noon,  
And oft, as if her head she bowed,  
Stooping through a fleecy cloud.”

But it is only for the way in which they affect the feelings that Milton introduces these natural objects, and the pleasure they give, great as it is, is not equal to that of human love and fellowship.

“ Sweet is the breath of morn, her rising sweet  
With charm of earliest birds ; pleasant the sun,  
When first on this delightful land he spreads  
His orient beams on herb, tree, fruit and flowers  
Glist’ring with dew ; fragrant the fertile earth  
After soft showers ; and sweet the coming on  
Of grateful evening mild ; then silent night  
With this her solemn bird, and this fair moon,  
And these the gems of heaven, her starry train ;  
But neither breath of morn when she ascends  
With charm of earliest birds, nor rising sun  
On this delightful land, nor herb, fruit, flower,  
Glist’ring with dew, nor fragrance after showers,  
Nor grateful evening mild, nor silent night  
With this her solemn bird, nor walk by moon,  
Or glittering starlight without thee is sweet.”

In the “Æneid” and in “Paradise Lost,” perhaps, the most striking references to nature are in the similes, where some important situation or scene is made more impressive by the description of something in nature analogous to it. The similes of Virgil, fine as they are, are fewer and weaker than either these of Homer or those of Milton. We have three cases where comparisons are made to the same or similar objects by Virgil and Milton, and, if Milton has imitated, he has, in at least two of them, decidedly improved. We shall refer to one case. Virgil compares the busy toil of the Tyrians at their new city to the work of bees in the meadows ; Milton compares the spirits who throng the approaches

to Pandemonium and fill the air above, to the same creatures, flying to and from their hive and gathered on the plank in front of it. Milton has a greater number of similes worked out at length after the Homeric fashion than Virgil. The description of the eagerness of the creature Death, when Sin and he feel at once by secret sympathy that Satan has been successful in seducing man is a good example :

“ As when a flock  
Of ravenous fowl, though many a league remote,  
Against the day of battle, to a field  
Where armies lie encamped, come flying, lured  
With scent of living carcasses designed  
For death, the following day, in bloody fight ;  
So scented the grim feature, and upturned  
His nostril wide into the murky air,  
Sagacious of his quarry from so far.”

Virgil is powerful in the delineation of nature in turmoil, as in the opening storm of “Æneid,” and in calm also, as in Book iv. of the “Æneid,” where the quiet of the night is contrasted with the restlessness of Dido. Nothing in the style of the first of these descriptions is found in the poems of Milton. We pass on to consider the treatment of man by the two poets.

Both Virgil and Milton lacked dramatic power. This was due in part to their deeply religious natures. One who habitually contemplates the noble or the sublime, withdraws his sympathies from that which is on a lower level, and not only disdains to portray it, but even loses the power to do so. Fancy Milton creating a Launcelot Gobbo, or a Trinculo ! Again, both Virgil and Milton lived largely in solitude. They were students of books more than of men, and were unfitted, both by natural temperament and personal habit, for representing rapid interchange of thought and lively play of emotion. The genius of Shakespeare and of Homer was creative, that of Virgil and of Milton was oratorical. Virgil and Milton, and particularly the latter, cannot but depict themselves to a great extent in their principal characters. Who does not recognize the pious Virgil in “pious Æneas” ? Who does not recognize Milton first in Satan, then in Adam, and most of all in Samson ?

“Samson Agonistes” is modelled after Greek tragedy. I remember beginning to read it once as a small boy. I had always been interested in the story of Samson, but I didn’t finish it then. But when that poem is read as a piece of contemporary English history, what

a tragic interest it possesses! It was written during the reaction of the Restoration. The Philistines were triumphant. The true Israel was in subjection. Milton was the Samson of the Puritans. He had lost his eyesight in their cause. His first wife had been one of the daughters of the Philistines. It was this similarity between the position of Israel and that of the Puritans that inspired Milton in writing the poem and made him put into it such an intensity of feeling.

The characters portrayed by Virgil and Milton in their epics are few. In "Paradise Lost" we have only two *human* ones, and in "Paradise Regained," we have none, as both Satan and Christ are supernatural. In the "Æneid" we have several, but only four prominent ones, Æneas, Dido, Mezentius and Turnus. Virgil's power in delineating character was weaker than Milton's, as his intellectual vigor was less. Satan and Adam reveal their inmost nature in their soliloquies. In their communings with their own hearts their most secret motives are laid bare. Æneas is often represented as in doubt what course of action to adopt, but he does not balance conflicting duties against one another as Milton's characters do; a *deus ex machina* in the shape of some supernatural sign from heaven is introduced to indicate his proper course.

It seems rather strange that the sympathies of the reader should be more with Dido and Satan than with any of the other characters of the "Æneid" or the "Paradise Lost," but this is true in the case of most readers. It was probably not so with the Roman readers of Virgil's day, or with the Puritan reader of Milton's time.

Dido is Virgil's strongest and most life-like creation. We see her, at the arrival of the Trojans in Carthage, a brave and enterprising queen, cherishing the memory of her lost husband. By the artifice of two gods a passion for Æneas is kindled in her breast. It is no ignoble one. It pities his misfortunes, and recognizes all that is great and noble in him. And what a struggle there is between her passion and her high sense of fidelity to the dead. How just is her scorn when he piously deserts her. What tragic pathos there is in her self-inflicted death, and in the sorrow, that, even in the abode of the blessed, flees from the false lover for comfort to Sychæus. But Dido was the founder of Carthage, and Romans even in Virgil's day, as we see in Livy and Horace, had not lost their hatred and distrust of everything pertaining to the city that had once threatened their national existence.



In the case of Satan it is a feeling that is very human, a feeling that human nature readily excuses, that has led to his fall. It is the feeling of proud independence, the "sense of inward merit," that with the mightiest raised him to contend. Moreover, we feel that the Almighty, as Milton has pictured Him, is too much like an absolute human monarch who is rather over-anxious about his own sovereignty and glory. And how can we help admiring, even though it is directed to an evil end, Satan's steadfastness of purpose, his courage never to submit or yield, his fortitude under suffering, his power to influence and inspire his followers? Satan, moreover, is not without gentle emotions. When he sees his followers shorn of their former radiance his heart is deeply moved. He tries to speak—

"Thrice he essayed and thrice in spite of scorn,  
Tears such as angels weep burst forth."

But in Milton's day the strength of Puritan hatred of Satan's aims was probably sufficient to outweigh the feeling of sympathy raised for him.

The character of Æneas is tame; his piety, consisting in his affection for his father, and his unwavering obedience to all the commands of fate and signs sent by the gods, is his most striking characteristic. He is also strong in endurance. He acts on the principle:

"Quidquid erit, superanda omnis fortuna ferendo est."

But he is lacking in energy, intellectual resource and passion. It cost him no great struggle to abandon Dido.

In Adam and Eve we have a noble pair:

"For contemplation he and valor formed,  
For softness she and sweet attractive grace."

In personal appearance—

"Adam the goodliest man of men since born, his sons,  
The fairest of her daughters, Eve."

But we feel that Milton has represented *himself* in Adam's circumstances, and that his first wife, with her intellectual inferiority and her vanity, has been too much in his mind when he was creating Eve.

In contemplating human life Virgil has a tendency to dwell on its sorrowful aspects. No other poet has felt and expressed such

"majestic sadness at the doubtful doom of human kind." His power of pathos is marvellous. It is Virgil who has left us the tale of Orpheus mourning for his lost Eurydice by desolate Strymon's wave; of Æneas in frantic grief searching in vain through burning Troy for his lost Creusa: of Dido's restless heart consumed with pain and anguish when through the rest of the world weary bodies were enjoying quiet repose, and the woods and wild waves had sunk to rest. It is Virgil who tells the fate of Laocoon, of Palinurus, of Marcellus. Often a single line or half-line, or an epithet, will raise a world of mourning. Some of these are:

"Sunt lacrimae rerum, et mentem mortalia tangunt."

"Tendebantque manus ripae ulterioris amore."

"O passi graviora."

"Dis aliter visum."

In Milton we find sublimity everywhere, but not much pathos. Milton's spirit was vigorous and energetic; Virgil's was gentle.

The thought of the supernatural, of a power beyond that seen in nature and in man, has strongly influenced the world's greatest epic poets. To Virgil's imagination this power is ever present, generally in the form of fate, but frequently also in the form of the gods. Fate had decreed that a city should arise in Italy and attain to universal empire. The "*Æneid*" is the story, not of the wanderings and contests of Æneas so much as of how the decrees of fate were accomplished by him and his descendants. The fact always present in the poet's mind is Rome—Rome the invincible, triumphing over all obstacles, ruling the nations with her sway, enforcing the maintenance of peace, sparing the submissive and crushing in war the proud. It was by doing his part in carrying out the decrees of fate with respect to this city that Æneas, in the estimation of the Romans, earned the epithet "*pious*." It was the accomplishment of his heaven-ordained task, that, in their eyes, justified him in deserting Dido. It is to encourage him in his work that in Book vi. he is taken down into the lower world and shown his most illustrious descendants. It was for the same purpose that Venus brought him a shield whereon the lord of fire, "not unskilled in prophecy nor ignorant of future time, had wrought the fortunes of Italy and triumphs of Rome," chief among which was the battle of Actium, with "Augustus Cæsar leading into fight his Italians, with the Fathers and the People, the Penates and the great gods."

The whole framework of "Paradise Lost" is supernatural. So, too are all the characters but two. We have already considered the character of Satan, but Milton's method in conveying an idea of his physical appearance deserves a few remarks as it affords an illustration of his method in describing other supernatural beings and the regions of heaven, hell and chaos. He does not attempt to give exact ideas of size or form. He is content with leaving an impression of vague immensity and allowing his reader's imagination to fill in details. When we are first introduced into his presence he is lying on the burning lake. His body floats "many a rood" as huge as the Titans or the sea monster that a pilot mistakes for an island. When he rises "a horrid vale" is left in the billows. When he walks along the shore his shield is like the moon viewed through Galileo's optic glass, which shows mountains and rivers visible on its surface; while the tallest pine is but a wand in size when compared to his spear.

The deities of the "Æneid" are those of the "Iliad," only they have been purified from their lower appetites and fiercer passions, and they walk with a certain Roman dignity and state. Juno shows her consciousness of her high position in her movements,

"ast ego quae divom incedo regina,"

and Venus has a grace that distinguishes her from mortals,

"vera incesu patuit dea."

Virgil and Milton were alike in being of a strongly religious temperament. Virgil, in addition to the belief in fate referred to above, believes in gods that reward good and punish evil. He puts his doctrine of rewards and punishments into the mouth of Anchises in Book vi. It is Plato's doctrine of eternal punishment at death for the worst, eternal blessedness for the best, and another chance in life after long purgatorial suffering for the rest.

The work of both poets has a great historical as well as poetical value. Virgil's ocean roll of rhythm will sound forever of imperial Rome. Milton's poems will ever voice the high moral sentiments and indicate the theological tenets of English Puritanism. How far the historically false elements in the poems will lead them to be neglected in the future remains to be seen. As it becomes more and more customary to conceive of man as rising to his present state from lower forms of being by evolutionary process, readers will have less patience with portions of the narrative of "Paradise

Lost." But one thing is sure, that Milton and Virgil have each built for themselves monuments which, whatever may be their imperfections, will endure as long as the human mind is what it is, and will be cherished by those whose esteem is best worth having.

We love Virgil, the pious, the gentle, the pure-hearted; we are moved by his pathos; we admire the perfection of his art, the majestic roll of his verse and the noble and often sublime sentiments that he expresses. But for Milton we have even greater enthusiasm. In his devotion to the cause of liberty and in his sturdy independence of spirit he was strong where Virgil was weak. In the majestic rhythm of his verse he is not inferior to the Latin poet. In the sublimity of his thought and language, in his moral grandeur and his lofty disdain for all that is petty and mean and debasing, he is without a peer. His soul was like a star and dwelt apart. In reading the noblest passages of his poetry we feel ourselves uplifted, transported, freed from the clogs of flesh and blood. We feel like his own Comus,

"Now my task is smoothly done,  
I can fly or I can run  
Quickly to the green earth's end,  
Where the bow'd welkin low doth bend,  
And from thence can soar as soon  
To the corners of the moon."

And he teaches us the secret of his inspiration

"Mortals that would follow me,  
Love Virtue, she alone is free,  
She can teach you how to climb  
Higher than the sphery chime;  
Or, if Virtue feeble were,  
Heav'n itself would stoop to her.

*SOME RECENT INVESTIGATIONS IN THE LATIN  
SUBJUNCTIVE.*

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In the paper which I am about to read before you there is nothing which I claim as my own by reason of first discovery. And in presenting to you the results of investigations conducted by others, I ought, perhaps, to offer a word of apology, seeing that some of the matter has been before the world for the past six years. To this matter, however, not all of our teachers have access, except in so far as it has been embodied in a few grammars, editions of which have appeared somewhat recently. But even these grammars, although they are in the hands of some, perhaps many, of our members and teachers, do not, I imagine, influence the general teaching very largely.

I shall, in the first instance, ask your attention to some important articles dealing with the *present* and *perfect* tenses of the *subjunctive in prohibitives*, and shall attempt a comparison and estimate of the treatises cited. In this connection, the first work to claim our attention is undoubtedly that of Prof. H. C. Elmer, of Cornell University, published in 1894 in the *American Journal of Philology*, vol. xv., and entitled "The Prohibitive in Latin." The radical character of this investigation was at once recognized and pretty generally approved. A few years later, in 1897, the German scholar, Berthold Delbrück, published at Strassburg the second part of his monumental work, "Comparative Syntax of the Indo-Germanic Languages (Vergleichende Syntax der indogermanischen Sprachen), in which he makes use of the material provided by Elmer. Other articles appearing in English and German journals have been made use of, *e.g.*, "The Sequence after *ne* Prohibitive," in the *Class. Review* for 1898, 1899 and 1900. This is from the pen of Sir W. D. Geddes, of Aberdeen University. The only important work that remains to be mentioned is that of two French scholars well and favorably known for their contributions to the knowledge of Latin syntax. I refer to the "Un Grammaire Comparée du Grec et du Latin," by Riemann and Goelzer, which



appeared in Paris in 1897, subsequent to the appearance of Delbrück's work.

To pass now to the question proper. The general treatment of these forms of the prohibitive had been, perhaps I should say still is, very unsatisfactory, and so contrary to the facts as to cause us no little surprise. Schmalz in his (in many respects) admirable treatise on syntax held that the use of the perfect had no special significance. The position taken by Madvig in his *Opuscula* ii., p. 105, and by Weissenborn on *Livy* xxi., 44, 6, may, I imagine, be accepted as the teaching generally received. This was, in brief, that *general* prohibitions, *i.e.*, those addressed to no *definite* person, were expressed by means of the present subjunctive; *particular*, or *specific* prohibitions, found expression in the *perfect*. Further, *ne* with the perfect was believed to be one of the most common forms of prohibition in the best classical prose. The truth, however, is that it is hardly ever found in such prose. If we exclude the Letters of Cicero, it will be found to occur only seven times, whether in prose or poetry, in the whole Ciceronian period. These occurrences are all in Cicero, in dialogue passages in which the tone is that of ordinary conversation. The omission of the Letters may occasion surprise; but the style of these is generally allowed to be that of the *Sermo Cottidianus* or *Sermo Familiaris*; indeed, Cicero himself says, *ad Familiares* ix., 21, 1: "*Epistolas vero Cottidianis verbis texere solemus.*" The Letters alone show twice as many occurrences (*i.e.*, fourteen) as are found in all the other productions of the Ciceronian age. Between Cicero and Livy four occurrences are found, and these are in Horace. This makes a total of eleven for classical prose and poetry from the beginning of the Ciceronian age down to the time of Livy.

An idea of the comparative infrequency of this usage in good prose of the best period may be gained by remembering that out of eighty-one genuine prohibitions in Cicero's speeches alone, there is but *one* expressed by *ne* with the perfect, *Pro Murena*, xxxi., 65. Even this may possibly be a present; at any rate, it is in a quotation of a Stoic teacher to his pupil. So much for the frequency of *ne* with the *perfect* in dignified, elegant prose.

Again, the fact that this form is not used in specific prohibitions only appears from the same speech, *Pro Murena*, and the same chapter, for *nihil ignoveris*, *nihil concesseris*, *nihil commotus sis* are all general.

Equally incorrect is the teaching of grammarians in respect of

the present tense. Madvig at the place cited above makes the assertion that this prohibition is "*apud Comicos rarissimum et paene inusitatum*." An examination shows that this is the *exact opposite* of the case. "It is extremely common—*apud Comicos*, far more so than any other form of prohibition." (Elmer, l. c., p. 133.) Then, the present is not confined to *general* prohibitions, as we are told. It is used in specific prohibitions in *all periods* and not *in poetry only*. Although several examples might be adduced, we shall cite only Cicero, *In Verrem* ii. 4. 23: *ne quem putetis sine maximo dolore argentum caelatum domo (quod alter eriperet) protulisse*. But the most striking fact is that the *general* prohibitive character of the present can be established for the Ciceronian and Augustan periods by only *one example*—Cicero, *Cato Maior* x. 33. (Even here Cato is conversing with *definite* persons, Scipio and Laelius.) The few examples which poetry yields do not concern the question. As a matter of fact a *general* prohibition is nearly always expressed by the use of the third person, *e.g., ne quis putet*, etc., or some circumlocution introduced by *cavendum est ne* and the like.

Thus far the criticism has been destructive rather than constructive. But we have at least cleared the ground for serious advance.

Delbrück, whose work has already been mentioned, though subsequent in point of time to Elmer, may be considered first. In treating "The old Aorist Injunctive in Latin" (§ 124), he says (I give the translation): "The continuation (*i.e.*, from the Idg.) of the old injunctive is *ne* with the *perfect subjunctive*. Since this subjunctive belongs to the *aorist* system Latin forms of this type show aoristic action." This "aoristic action" he further describes by the word "*punktueller*," which elsewhere (p. 14) he explains as meaning that "the action was finished as soon as begun"—(*dass die Handlung mit ihrem Eintritt zugleich vollendet ist*). Inasmuch as this would seem to be true of only so-called instantaneous acts, we must interpret his words to mean that the use of the aorist tense implies nothing as to the *progress* or *duration* of the act. It is not necessarily the act that is terminated in such short order, but the description of it, the *statement about it*. That this is Delbrück's meaning would appear from his later discussion of the material; and indeed it is implicit in his subsequent differentiation of the present from the perfect (on p. 383).

With a view to this differentiation Plautus and Terence will be found the best authors, not alone because it is in them, and in them

only, that both tenses are used very freely with *ne* and with *cave*, but also for the reason that the *character* of the prohibition can be most easily seen from the feeling of the speaker, as revealed by the situation. Availing himself of the abundant material which, thanks to Elmer's earlier article, he found ready to his hand, Delbrück set out to establish his position as already described, viz., that the perfect or aorist injunctive expressed "action that was finished as soon as begun."

In order to show the character of this kind of prohibition it will be necessary to cite a few of the 36 examples found in these two authors, of which 34 occur in Plautus.

Plautus, *Mil. Gl.* 285 (observe the great emphasis, and the contrast) Quod id est facinus? Tute sci soli tibi: Mihi *ne dixis*.

*Ibid.* 862. Perii: fugiam hercle . . . *ne dixeritis*, obsecro, huic, vostram fidem! (The anxiety and alarm of the speaker is very evident.)

*Trin.* 1012, *ne destiteris* currere (the speaker address himself: he fears a flogging).

*Epid.* 150, *ne feceris* (to one who has just declared his intention to commit suicide).

*Aul.* 790. *Ne me uno digito attigeris*, ne te ad terram, scelus, adfligam.

Terence, *Phor.* 742, *ne me istoc posthac nomine appellassis*—(the old man has been leading a double life and has at this moment great reason to fear that this will become known, if the person addressed should be so incautious as to again make use of *that other* name of his).

The remaining passages are precisely similar to these in their tone, and in the situations which they mark, so that I think their general character will be fairly well understood without further citation. The reason for the employment of the perfect in these cases is, to Delbrück's mind, not far to seek. It lies *solely* in the action, or *kind* of action, of the tense stem, the "punktuelle" action of the aorist. This view finds acceptance with Blase in Wölfflin's Archiv, and with other scholars, among whom may be mentioned Riemann and Goelzer (l. c., § 278, Rem. and § 318, 2, note).

Delbrück's explanation exactly coincides, *so far as it goes*, with that previously offered by Elmer. Neither see in, e. g., *ne feceris* any hint of length of duration; the *idea* of the act is merely *touched* and then *dismissed*. But of the indicative *fecit* also (repre-

sending an act *finished* in the *past*) it would be said that the idea of the act is merely touched and then dismissed. Is the case the same, then, with *ne feceris*, concerned, as it is, with the future, not with the past? I may be allowed to quote from Elmer's "Studies in Latin Moods and Tenses" (No. vi. of the Cornell Studies in Classical Philology), which appeared in 1898: "It seems to me that a serious mistake has been made in making no distinction between the perfect, or aoristic, conception as applied to the future, and the same conception as applied to the past. . . . The perfect indicative merely represents the act as one that took place; such an act is now placed beyond the *sphere of anybody's influence*—it is no longer a subject of suspense. But with the future use of the perfect subjunctive circumstances are quite different. The act is now one which is in suspense. Instead of taking a *calm view of past events* the speaker is now referring to events whose *character* . . . he is endeavoring to *shape and determine*. Under such circumstances the *manner of looking at the act* came, naturally enough, to be very closely associated with, and dependent upon, the manner in which the act was *performed*." The writer illustrates his meaning by the use of "you went" and "be gone!" In both we can see Delbrück's "*punktuelle*" aoristic action. Both, to be sure, *merely glance* at the act of going, the one past, the other future. But in "be gone!" the "form of expression is chosen only because the speaker *wants the act itself* to be promptly and quickly accomplished. So, too, in such uses of the perfect subjunctive as in "*di faxint*," the tense also indicates the character which the act itself is thought of assuming. Every such perfect *fixes the attention* at once upon the *completion of the act*. And just as the use of "be gone!" instead of "go!" shows with absolute certainty that the speaker is thoroughly aroused, so do similar uses of the perfect subjunctive in Latin betray a similar state of mind.

To return to Plautus and Terence. We have already observed the almost invariable accompaniment of strong emotion of some sort—real or feigned. And this is not infrequently made more evident by the presence of words or phrases of emphasis and earnestness, as *hercle*, *obsecro*, *per deos*, etc. Further, in the case of *cave* with perfect subjunctive the facts are exactly similar, and the occurrences are equal in number, 33.

As was stated above, the *ne* with the present subjunctive is the most frequent prohibition in Plautus and Terence, who yield more than 100 instances with *ne*, and 18 or 19 with *cave*. Without



troubling you with examples, it may be said that a remarkable feature is the large number of verbs of mere *mental activity*, e.g., "do not expect," "do not hope," "do not fear," "do not be surprised" (31, nearly one-third of the whole number). Such verbs would be looked for in vain in the perfect subjunctive. Similarly such prohibitions as "do not ask me," "do not remind me," are comparatively frequent in the present; and these, again, do not appear in the perfect. The facts for *cave* with present subjunctive are in harmony. Why should such verbs occur in the present and not in the perfect prohibitive? After considering all the cases, Delbrück concludes that in the great majority of instances the present indicates the duration or progress of the act. But a careful examination of all the circumstances seems to reveal more than Delbrück is willing to concede. For instance, in eleven passages in which the prologue or other speaker quietly addresses a prohibition to the audience never *once* is the *perfect* used. Briefly, then, we may say that, as a rule, the situations are marked by an absence of agitation, or by a feigned calmness, or sometimes by only slight emotion.

It seems to me that Elmer is right in claiming that the usage of these two authors is of first importance in a consideration of this whole question, for the reason that there are so many indications to make clear the feeling of the speaker. Delbrück, on the other hand, thinks that no certain inference can be drawn from Plautine usage; and while he does not really deny the correctness of Elmer's contention for Plautus and Terence he does assert that the latter has set himself against the facts when he attempts to show that the same distinction holds for Cato, and for Cicero's Letters. Now, the most striking characteristic of Comedy is its use of the familiar language of daily life, illustrative of the freedom of intercourse and the informality which exists among friends, and of the bearing of superiors to their inferiors. Next to Comedy the Letters of Cicero best illustrate this tone of familiarity. And it is in these Letters that the majority of examples of *ne* with the perfect in the classical period occur. Moreover, of the fourteen instances (in the Letters, that is) all but two are addressed to intimate friends or relatives; the two exceptions occur in passages of undoubted emotion and emphasis. To break down Elmer's position Delbrück cites from Cicero's letter to Atticus x. 13, 1: "Scribes igitur, ac si quid *ad spem poteris, ne demiseris*. In Antoni leones *pertimescas cave*," and asks in effect, "Are we to



suppose that *ne demiseris* is written with strong feeling, but *cave pertimescas* without such feeling?" His own reply to his question is, of course, that *ne demiseris* is "*punktuelle*," and *cave pertimescas* is durative. What must Elmer's reply be? For these are the circumstances: That Cicero was filled with anxiety at this time is clearly shown by other letters of the same period. Was his cause lost? If his friend could inform him of any ground of hope he *must not* fail to do so. Hence the perfect. On the other hand we have already seen that prohibitions expressed by means of verbs of mere mental activity took the present. As far as the speaker is concerned it matters little whether the prohibition be respected or not. Here, *pertimescas* is a verb of mental activity; and the prohibition does not concern the speaker. More than that, the allusion to Antony's lions (by which he was said to be drawn) is in a light vein, which is made much clearer from the words that follow—*nihil est illo homine incundius*.

Passing now to a consideration of the seven instances of the perfect in Cato's *de agri cultura*, we should observe that we have to deal with a work different in form from the Letters of Cicero, and the comedies of Plautus and Terence, addressed to no definite person, and abounding in general precepts. These facts would certainly seem to be against the frequent use of the perfect of emotion and energy in prohibitions; yet even in such circumstances it is quite conceivable that a writer should occasionally adopt the more energetic, forcible form of expression, where he thinks that it is of *special importance* that a certain thing should *not be done*. So, e.g., in 37, 1, Cato says: "If you have to do with land that is too loose, peas are a bad crop to put in, so are barley, hay, etc.; do not *think of putting* in nuts (*nucleos ne indideris*)." The six other passages may be said to show much the same kind of feeling, making it clear that in each case he thought that particular thing was especially to be avoided or prevented.

The distinction which Delbrück makes between these two tenses is now quite clear. The perfect represents the action of the verb as "*punktuelle*." The present represents the action of the verb as continuing. (This present type is not found in the other Italic dialects.) But his concluding statement has some interest for us; for he says that if the perfect sometimes betrays energy, earnestness, strong emotion, it is only an occasional incidental accompaniment, not an invariable characteristic. This, however, fails to account for the fact that in all Cicero's speeches there is only one occurrence (and

that not a certain one) of the *perfect*, while there are at least *eighty* occurrences of other forms; nor for the fact that the perfect rarely, if ever (prior to Livy), finds a place in a style that is calm, deferential and dignified. Hence its infrequency in classical literature, whether prose or verse. It was this characteristic of the classical literature that brought *noli* with infinitive more into favor, a form which is rare in Comedy because it would not be at home there. *Ne* with present suffered, no doubt, from its connection with the less respectful, not to say respectable, perfect, but it suffered much more from the rapid advance into favor of the eminently respectful and respectable *noli*, which occurs in Cicero alone 123 times, and always in prohibitions of the considerate and deferential kind. *Cave ne*, *vide ne* with present subjunctive also were common, but perhaps less so in Cicero than *oro*, *rogo*, *peto* or similar verbs followed by *ne* with present subjunctive. It may, perhaps, be added that *ne* with the imperative was in all periods poetical, a fact which is not disproved by its use in Livy, an author whose pages abound in new contributions, new words, new phrases, new ways of putting things, as compared with the literary prose of the periods which had preceded. In 76 of the 123 instances of *noli*, the verb is one expressing mere mental action. *Cave* with present subjunctive occurs 30 times, the verb in 17 instances expressing mental action. We saw above that this was characteristic of the verbs found with *ne* in present subjunctive. Over against all this we have to set 2 (3 ?) passages in which *ne* with the *perfect* is used with a verb of this kind—*ne dubitatis*, *ne timueritis*, *ne curaris*.

It seems to me, then, that the distinction which Elmer makes between these two tenses when used in prohibitions must be accepted as the only correct one.

## GREEK ART.

A. CARRUTHERS, M.A., TORONTO.

*(Abstract of Paper.)*

Although the title of the paper was "Greek Art," it dealt almost entirely with sculpture. Sculpture is the art which has to do with beauty as seen in form. What "beauty" really is, is a question to which no satisfactory answer has yet been given. Various theories were noticed, each of which contains some truth, but none of them the whole truth. Whatever the essential element of beauty is, the Greeks were most successful in seizing on that element, and expressing it, with the result that their works of art are beautiful for all time. Most modern statues are rather historical records than artistic productions. The Greeks were artistic by nature, and practically made a worship of the beautiful, while Aristotle made τὸ καλόν the motive of his ethical teachings.

Although indebted to Egypt and Assyria for the alphabet of their art, they were original in the highest sense, original in their perfection. The paper went on to show in what respects Greek sculpture differed from the sculpture of the Egyptians and Assyrians, dwelling on the chief characteristics of Greek art, namely, simplicity, harmony of proportion, the expression of life or soul, carefulness in the effect as a whole, and laborious accuracy in detail as well,—in a word, genuineness, truth. The materials used by the Greeks in their art were enumerated, and the manner in which they manipulated bronze and marble in producing their statues was described.

The various stages of development of Greek sculpture corresponded closely with the development of Greek literature. Some such division as the following might be made for the purpose of treatment :

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|--------------------|---|--|
| I. Archaic Period. | { | (a) Before 600 B.C.—Showing early influences of Egyptians and Assyrians. |
|                    | { | (b) 600 B.C. to 480 B.C.—Rise of Greek Sculpture.                        |
| II. Golden Age.    | { | (a) 480 B.C. to 400 B.C.—Represented by Phidias.                         |
|                    | { | (b) 400 B.C. to 320 B.C.—Represented by Praxiteles.                      |
| III. Decadence.    | { | (a) 320 B.C. to 100 B.C.—The Hellenistic Age.                            |
|                    | { | (b) 100 B.C. to 300 A.D.—The Græco-Roman Period.                         |

But it is often difficult to assign a work to its proper place in the history of Greek sculpture, for in later times a sculptor would become dissatisfied with the art of his own day, and seek inspiration from the ideals of an earlier age.

The sources of our knowledge of Greek sculpture and its history are literary or monumental. Direct literary sources consist of theoretical, historical or descriptive treatises on sculpture; indirect sources consist of references to sculpture and sculptors, in classical literature. In this connection the paper touched on the respective attitudes of Æschylus, Sophocles and Euripides towards art, and the attitude of art towards those three dramatists, that is, the use sculptors and painters made of the plays in selecting motives for artistic production.

The monumental sources are inscriptions, especially the artists' signatures, coins, gems and other minor works of art. The chief monumental evidence, however, is found in statues and reliefs still in existence.

A description was given of the ways in which statues were preserved, and the causes of the loss of so many art treasures, of the classification of sculptures into originals, copies and imitations, and of the process or fad of "restoration," which obtained almost universally up to the end of the first quarter of the present century. The paper concluded with a descriptive and historical account of the chief extant masterpieces, and the statement of certain facts in connection with the time and place of their discovery, the cities or museums in which they are now to be found, and the period of Greek sculpture to which they are probably to be assigned.

## MATHEMATICAL AND PHYSICAL SECTION.

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*THE SCIENCE OF THE ANCIENT GREEKS AND THE  
DEBT WE OWE THEM.*

Address delivered, by PROFESSOR ALFRED BAKER, before the Mathematical and Classical Sections of the Ontario Educational Association.

Ladies and Gentlemen,—In the study of the civilization and culture of the Greeks the science of the Greeks has been strangely ignored. Macaulay, in speaking of the influence of Athens—he is indeed speaking of the influence of Greece in general—declares that from thence Sidney, Bacon, Butler and Shakespeare drew their inspiration, ignoring Newton, who was more directly the child of Greek culture than any of these. Gibbon in speaking of Greek schools says curtly in reference to the great University of Alexandria: “Astronomy and physic were cultivated in the museum of Alexandria.” It may be said in explanation of this that the modern Grecian is ignorant of science, and the modern scientist is not always an accomplished Greek scholar. I prefer, however, to find an explanation in another direction. The scientist has made little of the history of his subject, considering it rather interesting and diverting than important and essential. To him the future is so vast that he has no time for the past; or he proudly declares the logical faculty, the faculty of observation, the inductive-deductive faculty are sufficient for the future, and but little is to be gained from the history of the past. More deference is now, however, being paid to the history of science, and wisely, I think. At least most of you will agree that scientific discoveries are as likely to be suggested by the study of the history of science, as is the future of our politics likely to be predicted or determined by the study of political history.

In dealing with the science of the ancient Greeks I propose to deal with each branch of science separately. This plan will impart greater clearness to what I have to say than an attempt to keep track of the contemporaneous advance of all branches.

Let me warn you in advance that the subject is a serious one, without being melancholy, and that, in consequence, any attempt at a factitious mirthfulness would not elucidate or relieve the subject, and would be a waste of time.



**Arithmetic.**—A well marked distinction was drawn by the Greek mathematicians between *logistica* (λογιστική), and *arithmetica* (ἀριθμητική); the former was the art of computation, what we moderns usually call arithmetic; the latter was what is now known as the Theory of Numbers. The art of computation is usually spoken of as the weakest spot in the mathematics of the Greeks; yet even here, I shall point out, they were on the way to reach the best results of modern times.

In counting they early employed finger-symbolism and pebble-symbolism. When 10 had been reached in counting it was an evident convenience to put aside a large or colored pebble, and begin again with the original pebbles. It was a still further convenience to dispense with the use of a variety of pebbles and to represent 10 by an ordinary pebble laid in a separate place. We hence reach the well known abacus (ἄβαξ). This continued to be employed for centuries after the Christian era. The method, however, of expressing numbers was awkward, and this made operations in numbers doubly so. The value and convenience of our modern system of notation arises from recognizing that numbers are classified according to powers of ten, into units, tens, hundreds, etc., and from perceiving that in consequence we can write numbers thus :

$$3 \times 10^3 + 7 \times 10^2 + 8 \times 10 + 5;$$

and next in making position indicate powers of ten, which thus need not be explicitly expressed. The number in consequence is written

$$3785.$$

This invention is due to the Hindus, and is of very great consequence indeed in the advance of science and civilization. Hence we are prompted to enquire whether the Greeks at any time were feeling their way towards this invention.

In a pamphlet entitled *ψαμμίτης* (Lat., *Arenarius*), Archimedes addresses himself to the problem of enumerating the sand, and especially to the question whether an expression can be devised to represent the vast resulting number. As a solution he proposes that numbers from 1 to  $10^7$  shall be considered of the *first order*, those from  $10^8$  to  $10^{15}$  of the *second order*, and so on; and he reaches the conclusion that a sphere as large as the universe would hold less than  $10^{63}$  particles. It seems clear that he wrote the powers of 10 down and then divided them into groups of 8 terms each. According to his method such a number as 3864752 would have been written  $\gamma\lambda^{\zeta}\theta\lambda^{\epsilon}\zeta\lambda^{\delta}\delta\lambda^{\gamma}\eta\lambda^{\beta}\epsilon\lambda^{\alpha}\beta$ . Had his method been adopted it would have been a vast advance on the then existing method; and there can be little doubt that in a short time the obvious improvement would have been made of dropping the  $\lambda^7 5$ , thus practically

giving us our present method. There can be no doubt, furthermore, that

Greek numbers :

$$\alpha, \beta, \gamma, \delta, \varepsilon = 1, 2, 3, 4, 5.$$

$$5 = 6.$$

$$\xi, \eta, \theta, \iota = 7, 8, 9, 10.$$

$$\iota\alpha, \iota\beta, \dots \iota\theta = 11, 12, \dots 19.$$

$$\kappa, \lambda, \mu, \nu, \xi, \omicron, \pi = 20, 30, 40, 50, 60, 70, 80.$$

$$\kappa\alpha, \kappa\beta, \lambda\alpha, \lambda\beta, \text{etc.} = 21, 22, 31, 32, \text{etc.}$$

$$\rho, \sigma, \tau, \upsilon, \varphi, \chi, \psi, \omega = 100, 200, \dots 800.$$

$$\rho\iota\alpha, \rho\kappa\beta, \text{etc.} = 111, 122, \text{etc.}$$

when Archimedes invented his new nomenclature, he desired to improve the methods of calculation. Apollonius suggested a system of notation quite similar to that of Archimedes. The genius of these Greeks thus placed the western world in practical possession of one of the most valuable time-savers of modern times. Why was the invention not utilized and developed? Your knowledge of political history will suggest the answer. The dominating influence of Rome had made its appearance. Rome did as much to extend pure science as China. The Roman soldier rushing with murderous intent on Archimedes is suggestive of the relation of Roman power to much that was best in Greek civilization.

**Theory of Numbers.**—I have said that with the Greeks ἀριθμητική signified not our modern arithmetic, not methods of computation, but rather what is known to us as the Theory of Numbers. This branch of science has occupied the attention of the most distinguished mathematicians of modern times. With it are associated the names of Gauss, Jacobi, Dirichlet, Cauchy, Henry Smith, Kronecker, Hermite and Dedekind. The subject was created by the scientific aptitude of the Greeks. Kummer, the German mathematician, is reported to have said that the theory of numbers was the only branch of mathematics not yet sullied by contact with utility. If this be so, we have here an illustration of that purely intellectual curiosity and activity of the Greeks which was so distinguishing a mark of this incomparable people. The theory of numbers, however, became with the Greeks the parent of their algebra, and so of all modern pure analysis, the influence of which on modern science, pure and applied, it is quite impossible to over-estimate.

The scientific study of numbers goes back to the time of Pythagoras (say, 530 B.C.). To him, as you are aware, is ascribed the maxim that numbers are the essence of all things. Had Pythagoras possessed a knowledge of modern science, had he known that difference in colors is merely a difference in the number of vibrations of the luminiferous ether, that difference in sounds is due to difference in the number of undulations of the air, had he had the knowledge of the American scientist who

declared that the next great scientific discovery would be found in the fourth place of decimals, we should have no difficulty in understanding why the Greek philosopher claimed that numbers were the essence of all things. The explanation of his philosophy appears to be that, perceiving number to be essential to the exact definition of form, he thought that number was, in a sense, the cause of form, and form of quality. It is said he held that fire was the product of the tetrahedron, the earth of the cube, air of the octahedron, sphere of the universe of the dodecahedron, and water of the eicosahedron.

Certain propositions in the theory of numbers are as ancient as the time of Pythagoras (530 B.C.), or at all events as that of Plato (380 B.C.). Thus it was known that

$$1 + 3 + 5 + \dots + (2n + 1) \text{ is a square,}$$

and that

$1 + 2 + 3 + \dots + n$  is of the form,  $\frac{n(n+1)}{2}$  a so called triangular number.

They discussed "perfect numbers" which were such that the sum of their factors was equal to the number ( $28 = 1 + 2 + 4 + 7 + 14$ ); and "amicable numbers" which were such that the sum of the factors of one was equal to the other ( $220 = 1 + 2 + 4 + 71 + 142$ , and  $284 = 1 + 2 + 4 + 5 + 10 + 11 + 20 + 22 + 44 + 55 + 110$ .)

The 47th of Euclid, Book I., is ascribed to Pythagoras. Hence he knew that a triangle whose sides were as the numbers 3, 4, 5 was right angled. He generalized this in the form  $(2n+1)^2 + (2n^2+2n)^2 = (2n^2+2n+1)^2$ ; and Plato added the generalization  $(2n)^2 + (n^2-1)^2 = (n^2+1)^2$ .

Euclid begins to deal with numbers in the seventh book of his Elements. His first proposition is a test as to whether two numbers are prime to one another, and is identical with our method of finding the greatest common measure of two numbers. The book is largely occupied with prime numbers. The eighth book deals largely with numbers in geometrical progression; and in the ninth book Euclid practically sums a geometrical progression. The tenth book concerns itself with surd quantities and incommensurables.

You will perceive that in his theory of numbers, in geometrical progressions, in surds, Euclid had commenced to deal with subjects that are now dealt with in algebra, though of algebraic forms he was quite innocent. He even solved two quadratic equations:  $x^2 = ab$  and  $a(a-x) = x^2$ , though he solved them by geometric means.

His treatment of incommensurables, indeed, the mere recognition at that period of the existence of such quantities, is an admirable illustration of the surpassing intellectual subtlety of the Greek.

In the tenth book occurs a proposition of prodigious importance to

mathematical science: If two unequal magnitudes be given, and from the greater more than half be subtracted, and from the remainder more than half, and so on with successive remainders, the final remainder will be less than the smaller of the two given magnitudes. So also if only halves be subtracted. It means that a magnitude can be found less than any assignable magnitude, and therefore neglectable. The proposition was the basis of the Method of Exhaustions of Archimedes, but of this I shall speak hereafter.

After the death of Euclid the genius of Archimedes and of Apollonius won for geometry such prominence that the study of the theory of numbers was obscured for nearly four centuries. It was revived by Nicomachus (A.D. 100,) and continued a favorite study until the time of Diophantus.

**Algebra.**—The *arithmetica* of Nicomachus was inductive not deductive. It occupied itself with the classification of numerical propositions, and the classes are illustrated by actual numbers. But this induction would create the need for the expression of and proof of general propositions. Hence arose the need for a universal symbolism, and *ἀριθμητική* led the way to algebra.

But algebra was heralded not only by the need for a symbolism to express general propositions in the theory of numbers, but also by a class of questions which at the time excited interest and led naturally to equations. The following are examples: Two animals are laden with corn; one says to the other, "If you gave me one measure I should carry twice as much as you; if I gave you one, we should carry equal burdens." What were their burdens? Then there was the famous problem of the cattle of the Sun, said to have been proposed by Archimedes to the mathematicians of Alexandria. The following problem is due to Metrodorus (A.D. 320),—Of four pipes, one fills a cistern in one day; the next in two days; the third in three days, and the fourth in four days. If all run together, in what time will the cistern be filled? Such problems involve the consideration of an unknown quantity, for which some symbol would be convenient.

Diophantus, of Alexandria, belongs to about 360 A.D. Though, as I have indicated, scientific progress had for some time been in the direction of algebra, Diophantus may be said to have realized the significance of this previous progress, and to have, in a sense, created algebra. His principal work was the *Ἀριθμητική*. It is purely algebraic and analytical, and is occupied with the solution of equations. The following very brief synopsis will convey some notion of the character of the algebra of Diophantus:

The unknown quantity he calls  $\delta \alpha\rho\iota\theta\mu\acute{o}\varsigma$  or  $\delta \acute{\alpha}\rho\iota\sigma\tau\omicron\varsigma \alpha\rho\iota\theta\mu\acute{o}\varsigma$  (without boundaries, indeterminate). Its symbol was  $\varsigma$  or  $\varsigma^o$ ; in the

plural  $\varsigma\varsigma$  or  $\varsigma\varsigma^{ol}$ . The square of the unknown quantity, our  $x^2$ , was denoted by  $\delta\acute{\upsilon}\nu\alpha\mu\iota\varsigma$ ; and its symbol was  $\delta^v$ .

$x^3$  by  $\kappa\acute{\upsilon}\beta\omicron\varsigma$ , with symbol  $\kappa^v$ .

$x^4$  by  $\delta\upsilon\nu\alpha\mu\omicron\delta\acute{\upsilon}\nu\alpha\mu\iota\varsigma$ , with symbol  $\delta\delta^v$ .

$x^5$  by  $\delta\upsilon\nu\alpha\mu\acute{\omicron}\kappa\upsilon\beta\omicron\varsigma$ , with symbol  $\delta\kappa^v$ .

$x^6$  by  $\kappa\upsilon\beta\acute{\omicron}\kappa\upsilon\beta\omicron\varsigma$ , with symbol,  $\kappa\kappa^v$ .

Beyond the sixth power Diophantus did not go.

Known numbers are denoted by  $\mu\omicron\nu\acute{\alpha}\varsigma$  ( $\mu\omicron\nu\acute{\alpha}\delta\epsilon\varsigma$ ) with symbol  $\mu^o$ . Thus unity is expressed by  $\mu^o\alpha$  or  $\mu^o\mu\acute{\iota}\alpha$ ; 5 by  $\mu^o\epsilon$ ; 8x by  $\varsigma\varsigma\eta$ .

The sign of subtraction is the word  $\lambda\epsilon\acute{\iota}\phi\epsilon\iota$  (minus) and its symbol  $\mu$ , i.e., a truncated and inverted  $\psi$ .

The symbol of equality is  $\iota$ , the initial of  $\acute{\iota}\sigma\omicron\varsigma$  ( $\acute{\iota}\sigma\omicron\iota$ ).

The negative terms in an expression are all written after the positive ones, thus making a sign "plus" unnecessary. Accordingly  $8x^4 + 7x^2 + 5 - 3x^3 - 12x$  would be written  $\delta\delta^v\eta\delta^v\zeta\mu^o\epsilon\mu\kappa^v\gamma\varsigma\varsigma\iota\beta$ .

In expressing fractions he writes the numerator first; then  $\acute{\epsilon}\nu\mu\omicron\rho\acute{\iota}\omega$  or  $\mu\omicron\rho\acute{\iota}\omega$  ( $\mu\acute{\omicron}\rho\acute{\iota}\omega$ , a small piece); then the denominator. Thus

$$\frac{3x+2}{5x^2-7x+4}$$

would be written  $\varsigma\gamma\mu^o\beta\mu\omicron\rho\acute{\iota}\omega\delta^v\epsilon\mu^o\delta\mu\varsigma\zeta$ .

Enough has been said to show that it needed but little modification to bring algebraic notation into the form in which we have it at present. I may remind you that for historical treatment algebra has been divided into three stages: the *rhetorical*, when the whole process of demonstration was written in full without abbreviations; the *syncopated*, to which Diophantus belongs; and the *symbolic*, that used at present. Some scientific subjects have not yet advanced beyond the rhetorical stage. Political science is still in the rhetorical stage; chemistry may be considered in the syncopated, while mathematics alone has attained the higher symbolism.

The problems which Diophantus solved are such as the following: To find three numbers such that their sum, and also the sum of any two of them shall be a square; to divide a given number into four parts such that the sum of any three parts is a square; to find a right-angled triangle such that its area exceeds the sum of the hypotenuse and one side by a given number.

The following will illustrate the form of the equations which he solves:

I. Indeterminate equations of the second degree, classified as

(1) Single equation:  $Ax^2 + Bx + C = y^2$ .

(2) Double equation:  $Ax^2 + Bx + C = y^2$ ,  $A'x^2 + B'x + C' = z^2$ , i.e., one value of  $x$  required that will make both functions on the left squares.



II. Indeterminate equations of a degree higher than the second, such as

$$Ax^3 + Bx^2 + Cx + D = y^2.$$

$$Ax^4 + Bx^3 + Cx^2 + Dx + E = y^2.$$

$$x^6 - Ax^3 + Bx + c^2 = y^2.$$

$$Ax^2 + Bx + C = y^3.$$

$$Ax^3 + Bx^2 + Cx + D = y^3.$$

The history of Greek algebra closes with Diophantus. Its continuance is to be sought with the Hindus and Arabians. No one, I take it, will ask why did not the Greeks follow up the inventions and discoveries of Diophantus. You will rather be amazed at the surpassing genius of a people who, four hundred years after the destruction of their autonomy, were capable of such brilliant achievements.

Through the Arabians algebra was introduced to western Europe. It is not necessary for me to enlarge on its importance. All analysis is algebra. Its study has made possible the most surprising discoveries not only in pure, but also in applied science. Indeed it has both directly and indirectly stimulated activity in every department of scientific investigation. We owe the subject primarily to that incomparable people, the Greeks.

**Geometry.**—But it was in geometry that the genius of the Greeks especially asserted itself. The Conics of Apollonius might almost, in the modern dress imparted to it by Mr. Heath, form a text-book for students of geometry to-day. No one would make the same claim for the algebra of Diophantus. And yet Apollonius preceded Diophantus by nearly six hundred years. The algebra of the Greeks had itself a certain geometric cast. The brilliancy of the Greeks as geometers is, I think, explained by the intensity of their space and form intuitions which found a sensuous expression in their sculpture and architecture, an intellectual expression in their geometry. The geometry and art of the Greeks were absolutely correlative. I have not met with any writer who has drawn attention to this, though it has always meant much and explained much to me.

The geometry of the Greeks made astronomical progress possible, indeed *forced* astronomy from a geocentric to a heliocentric explanation of the cosmos. But I believe in a subtler way geometry has assisted physical science. In geometry a deep insight constantly reveals to us constancy and simplicity where on the surface there appeared instability and complexity. That an angle in the segment of a circle preserves the same magnitude for all positions is a simple illustration. This must have encouraged early observers to look for the constancy and simplicity of law amid the unending variableness of physical phenomena. Of course the fundamental principle of all physical research, both what is past and what is to come, was set forth by the Pythagoreans when they declared

that numbers were the essence of all things. And those old philosophers in groping their way towards the truth sought to establish a fantastic relation between geometric facts and physical phenomena. Their marvelous geometric insight had early made them acquainted with the five regular solids. Why should not the symmetry observed in them be utilized in nature? So we find them conjecturing, teaching perhaps, that fire consists of tetrahedrons, earth of cubes, air of octahedrons, water of eicosahedrons, and that the universe was a dodecahedron. Very fantastic this seems, yet it was a veritable inspiration,—a declaration of the intimate association between mathematics and physics, and this association has never been lost sight of.

The well recognized schools of geometry, of all mathematical science, indeed, amongst the Greeks are the Ionic with Thales at its head, the Pythagorean, that of the Sophists, the Academy with Plato as its inspiration, and the Alexandrian. It is worthy of note that Greek science owed so much of its success to Greek colonies—to Ionia, to Magna Græcia, to Bithynia (the home of Hipparchus), and to Alexandria.

The theorems ascribed to Thales, the head of the Ionian school, are, as might be expected, amongst the most elementary in geometry, such as: The angles at the base of an isosceles triangle are equal; if two straight lines cut one another the opposite angles are equal; the angle in a semi-circle is a right angle; the sides of equiangular triangles are proportional. Thales was a contemporary of Solon and Pisistratus. Thus while Solon was generalizing in ethics, and creating a philosophy of jurisprudence, Thales, by abstraction, was creating the science of geometry.

The world has not contained more fervent mathematicians than the Pythagoreans. They seem to have hoped to find in mathematics what chemistry, biology and other sciences have revealed. This school, as succeeding schools, was occupied in two directions—in perfecting the form of the science of geometry, in systematising it, and in the discovery of fresh geometrical facts. Geometric science, so far as its *form* is concerned, reached perfection, within limits, under Euclid, and has not since advanced. So far as the discovery of additional facts is concerned, the science has not yet reached completion and never will. And here let me say that in those departments of human activity where form, in its broadest sense, is the essential quality, the Greeks reached perfection—in sculpture, in architecture, in oratory, in literature, in historic narrative, in scientific arrangement and logical form.

The teaching of the Pythagorean brotherhood, as is well known, was esoteric, and it is, in consequence, impossible to determine the extent of their mathematical knowledge. Philolaus, a contemporary of Plato, is credited with the first publication of the details of their philosophy. The following, amongst other geometric discoveries, are ascribed to them: The

three angles of any triangle are together equal to two right angles; the forty-seventh proposition of Euclid's First Book; the construction of the five regular solids. Probably to them is due the introduction of definitions and of orderly deductive proofs. Proclus states that Pythagoras changed the study of geometry into the form of a liberal education, for he examined its principles to the bottom, and investigated its principles in an immaterial and intellectual manner. This seems to mean that what before had been empirical became scientific.

The Sophists, who introduced geometry into Athens, coming from Sicily at the time when the Persian wars had made Athens the most brilliant city of the ancient world, probably received their knowledge and inspiration from the Pythagoreans. It will readily be understood that the disposition of the Sophists to question everything would lead to the establishment of geometric proof on firmer foundations, and to a clearer recognition of ultimate principles. But the Sophists were productive as well as critical. They occupied themselves, as did all mathematicians of antiquity, with those famous problems, (1) the quadrature of the circle, (2) the trisection of an angle, and (3) the duplication of the cube. The fruitfulness of their failures may well recall the dying father's story to his sons of the concealed treasure in his garden. The curve known as the quadratrix was invented, possibly by Hippias, (430 B.C.), for the quadrature and trisection problems, and thus the subject of Higher Plane Curves had a beginning. Hippocrates of Chios (430 B.C.) succeeded in squaring the lune. He also wrote the first text-book on the elements of geometry.

Plato was not a great mathematician, but he had a great admiration and enthusiasm for mathematics. His physical philosophy was an effort to find in numbers and geometry the key to the universe. The saying, "*θεὸς αὐτὸν γεωμετρῶν*" is attributed to him. He valued geometry as a means of education in accurate thinking. His improvements, no doubt, were in geometrical method. "With him apparently begin those careful definitions of geometrical terms, that distinct statement of postulates and axioms which Euclid has adopted." He thus placed the subject on a proper and philosophical basis. It is, perhaps, not too much to say that he was the first to recognize the essential character of pure, ideal science, which recognition, of course, was nothing short of a revelation to mankind. He protested against mechanical solutions for the duplication problem. I prefer to think that this was not an objection to applied or mechanical science, but rather an expression of irritation towards those who, unacquainted with the true principles of geometry, were exhibiting with ignorant pride mechanical solutions of problems with which the greatest men had wrestled in vain. His influence on nascent science was undoubtedly prodigious. Possibly his least valuable service to mankind

was the starting of those ethical and political see-saws which even yet furnish a pastime to Greek scholars and a padding for Greek lectures.

It is a curious fact that the conic sections were discovered not directly from making sections of the cone, but from efforts to reach the duplication of the cube. To Menæchmus (B.C. 340) the discovery of these curves was due, which after him were called the "Menæchmian Triads." Their properties were investigated with such unparalleled zeal and success that in the short space of one hundred years the geometry of the conics was in a sense complete under Apollonius (B.C. 230).

The most brilliant Greek school of mathematics was that of Alexandria, and its most distinguished scholars were Euclid, Archimedes and Apollonius. In the preface to his *History of Greek Mathematics* Gow states that the work represents part of a collection of notes, the result of years of labor, with a view to a general history of the great city of Alexandria. He further declares his intention of treating the literary school with the same fulness. The philosophy which found a home in Alexandria will, no doubt, receive equally specialized consideration. Surely this is valuable history writing, though history which few can write and not all can read.

Of the perfection of Euclid (B.C. 290) as a scientific treatise, of the marvel that such a work could have been produced two thousand years ago, I shall not here delay to speak. I content myself with making the claim that, as an historical study, Euclid is, perhaps, the most valuable of those that are taken up in our educational institutions.

Archimedes (B.C. 250) was the greatest mathematician, the greatest scientist of antiquity. Though he dwelt at Syracuse he is properly assigned to the Alexandrian school, for he studied in Egypt, corresponded with Alexandrian mathematicians, and was acquainted with what had been done in the university of that city. His geometrical works include treatises on the Quadrature of the Parabola, on the Sphere and Cylinder, on the Measurement of the Circle, on Spirals, on Conoids and Spheroids. The discovery of which he was especially proud, was the determination of the volume and surface of the sphere. He showed, as you are aware, that they are two-thirds the volume and surface, respectively, of the circumscribing cylinder. It was for this reason that Marcellus placed the figure of this proposition on the tomb of Archimedes. Gow says of him, "Even later writers, such as Gauss and De Morgan, who were familiar with the highest modern methods, do not hesitate to rank him with Newton in the very forefront of the champions of science."

The *Conic Sections* of Apollonius was without doubt, having regard to the period at which it was written, one of the most brilliant pieces of work that science has ever produced. It has recently been reproduced in English by T. M. Heath, of Cambridge, and, in the modern dress



imparted to it, Heath's Apollonius might profitably form a text-book in conics in any university to-day. In addition to the ordinary properties of conics, this old Greek writer deals with similar conics, intersecting conics, harmonic properties of poles and polars, and the determination of the evolutes of conics.

The devotion of the Greeks to this branch of pure science, apparently in their time far removed from all relation to utility, was productive of tremendous influence on scientific advancement. When Kepler made his observations on the planet Mars, his acquaintance with the geometry of the Greeks enabled him to declare that the planets moved in ellipses. Newton's knowledge of the geometry of the Greeks and of Kepler's discoveries, led him to the law of gravitation. Newton's immortal discoveries have, without doubt, lent an all-pervading inspiration to modern science, if they have not created it. Thus when the old Greeks, without one thought of utility, yielding to the promptings of their genius, were gratifying their intellectual curiosity with such marvellous success, they were making modern science possible. Truly this incomparable people "bulted better than they knew."

**Infinitesimal Calculus.**—I turn now to trace the origin of the infinitesimal calculus in the mathematical researches of the Greeks. One of the most fundamental conceptions in the infinitesimal calculus is the notion of continuity,—the notion of the continuous growth of quantity. Hence, as an illustration, a tree is often referred to, which by the addition of infinitely small particles after a time is seen to change its size and form. In that change there is nothing abrupt, nothing by jumps. Leibnitz defined the law of continuity, as far as I recollect, in some such way as this: Anything in passing from one state to another state passes through all intermediate conditions. The fundamental character of the notion of continuous growth, in the infinitesimal calculus, is my reason for frequently speaking of this calculus as the mathematical recognition or expression of the doctrine of evolution. Of course anything so fundamental as this notion of continuity was not to escape the activity and subtlety of the Greeks, and accordingly we find Aristotle defining continuity as follows: A thing is continuous (*συνεχές*) when of any two successive parts the limits, at which they touch, are one and the same, and are, as the name implies, held together. I should not be making a mistake if I spoke of this as the corner stone of the differential calculus.

I have already spoken of a certain proposition which occurs in the tenth Book of Euclid's Elements, and which I again state in a slightly different form: If from a certain magnitude there be taken one-half or more than one-half, and from the remainder one-half of it or more than one-half, and the process be continued indefinitely, there will



at length remain a magnitude less than any assignable magnitude. The proposition may be illustrated by bisecting a straight line, and then bisecting the half, and so on. This proposition was the foundation of the "method of exhaustions," and is the corner stone of the integral calculus. The use of the method is ascribed to Antiphon and Bryson, one hundred and fifty years before the time of Euclid. I shall illustrate the method of exhaustions by showing the use made of it by Archimedes in his Quadrature of the Parabola :

Suppose B C to be any cord of a parabola cutting off the segment A B C, and let A be so selected that the tangent at it is parallel to B C. Then the triangle A B C is more than half the segment of the parabola, for it is half the circumscribing parallelogram. Let P and Q be points on the arcs A B, A C, at which the tangents are parallel to A B and A C, respectively. It is a property of the parabola that the sum of the triangles P A B, Q A C is one-fourth the triangle A B C. Let triangles be described in the segments B P, P A, A Q, Q C as the already named triangles were described ; and suppose this process continued indefinitely. Evidently the triangles became smaller and smaller, and the difference between the sum of the triangles and the segment of the parabola is at length *exhausted*, i.e., the sum of the triangles ultimately equals the segment. But, from property already referred to, the sum of the triangles

$$\begin{aligned}
 &= A B C \left\{ 1 + \frac{1}{4} + \frac{1}{4^2} + \dots \dots \right\} \\
 &= A B C \frac{1}{1 - \frac{1}{4}} = \frac{4}{3} A B C \\
 &= \frac{2}{3} \text{ circumscribing parallelogram, which, therefore, is} \\
 &\quad \text{the area of the segment.}
 \end{aligned}$$

The reason for the term "method of exhaustions" is evident. The process of subtracting was continued until the difference between the sum of the areas of the triangles and the area of the segment was exhausted. It is not difficult to see the difference between the method of Archimedes and that of our modern calculus. In both cases there is an endless series to be summed, but in the ancient method the terms at the commencement of the series are of appreciable magnitude, and ultimately become inappreciable ; whereas in the modern method the terms from the beginning are inappreciable. Archimedes said, as it were, let us not bother with infinitesimals before we are compelled to ; the moderns say let us face the difficulty of infinitesimals at once. Archimedes' method continued until the 17th century, when Cavalieri introduced the "method of indivisibles," and Newton and Leibnitz still further improved this into the modern infinitesimal calculus. But what I have said will convince

you we owe this science to the Greeks. The torch that was lit by Antiphon was passed to Euclid, who delivered it to Archimedes, from whom, burning brightly, it was received by Cavalieri; and after it had passed from the hands of Newton and Leibnitz, it became a light that illuminates at least the mathematical world.

**Astronomy.**—I next turn to the subject of astronomy, in which the investigations and discoveries of the Greeks were as brilliant as in geometry. The explanation of the cosmos, or system of the universe, has been altogether the most important problem to which man has addressed himself. The solution has been vast in its influence on science. The knowledge that the earth is so insignificant a part of the universe has by no means as yet asserted its moral influence. We do not realize the fact. If we did the incentive to much of human action would probably cease, certainly, much of such action as flows from mean motives.

The Greeks from the earliest times addressed themselves to this problem. There is an impression amongst some whom I should scarcely care to regard as well-informed, that our own Bacon was the originator of the inductive method in science, which, as you know, consists in observing and collecting facts, and in framing hypotheses to account for these facts. The Greeks, as I shall have occasion to point out, for centuries pursued this method in seeking an explanation of the apparent motions of the heavenly bodies.

Observation of the heavens shows that the stars, sun and moon appear to revolve about the earth in the period we call a day. Accordingly the earliest Greek conception of the system of the universe that deserves to be called a theory was that the stars were fixed in a crystalline sphere which each day revolved about the earth. So far as the movement of the fixed stars is concerned, the theory, as a theory, was complete and satisfactory. But the early astronomers continued to observe, and noted that in addition to their daily motion from east to west, the sun and moon had a motion amongst the stars from west to east, accomplished in a year and in a month respectively, and that the planets progreded, regreded, and at times were at rest. Hence it became necessary to modify this theory, and it was done by multiplying the spheres in order to account for these irregularities. The Pythagoreans thought there must be twelve of such spheres—those of the earth, water, air, fire, moon, sun, Mercury, Venus, Mars, Jupiter, Saturn and fixed stars. Evidently if each body had its own sphere with power of independent motion, any appearance could be accounted for.

This sphere-theory received its final elaboration at the hands of Eudoxus of Cnidos (B.C. 360). He ascribed to the sun and moon each three spheres; and to each of the planets, four. I offer the following explanation of the mode in which Eudoxus may have supposed the three

spheres of the sun, for example, produced its motion : (1) Sun placed in centre one which has motion of starry spheres ; this would account for sun's daily motion ; (2) an outside sphere with backward motion and with same axis as starry sphere ; this would account for sun's annual motion amongst the stars ; (3) an inside sphere with motion at right angles to the two preceding ; this would account for the sun's motion north and south of the equator. By friction the two latter spheres may have been supposed to exert their influence. The spheres being divine were supposed to have within themselves the power of motion. Plato in his Republic speaks of them as being moved by the Fates, the daughters of Necessity. This is, of course, merely a poetical, a Greek way of saying that they were created with these motions as a law of their being. I fear in our efforts to explain what gravitation is we have not got much beyond this fancifulness.

It is remarkable how close the theories of some philosophers during this period came to the truth. More than one believed that the earth turned on its axis. This view is ascribed to Hicetas of Syracuse, a Pythagorean, by Cicero in his "*De Natura Deorum*." Aristarchus, of Samos, who belongs to the earlier half of the second century before Christ, is reported by Archimedes to have taught that the earth turned on its axis, that it revolved about the sun, and, more remarkable still, that the distance of the sphere of the stars was so great that the radius of the earth's orbit was evanescent compared with it. So that the Copernican theory of the universe was in part a revival of opinions held by a Greek philosopher centuries before.

I now advance another stage in the history of this problem. More attentive observation disclosed certain inequalities, particularly in the moon's motion, which the theory previously described could scarcely account for ; and Apollonius, the distinguished geometer of Alexandria, appears as the propounder of the system of eccentrics and epicycles—a system afterwards elaborated by the genius of Hipparchus and the labors of Ptolemy, and known to the world as the Ptolemaic system.

Let me here refer to the labors of Hipparchus by way of showing the character of the work done in astronomy by one of those old Greeks. He was one of the most remarkable men of any age or of any country. In the pursuit of his science he labored under enormous difficulties. Science was in its infancy. Hipparchus' conception of the system of the world was wrong. His means of measurement were rude. His means of observation were most elementary ; for he lived long before the invention of the telescope. Yet had he possessed all the refined appliances of modern science, his discoveries would have deserved unbounded admiration, and have won for him undying fame. An enumeration of these discoveries excites wonderment in proportion to one's acquaintance with astronomy. The date 130 B.C. may be assigned him.

He found the inclination of the ecliptic to the equator with an error of only five minutes. He found the duration of the year with an error of only six and a quarter minutes of time. More wonderful still, he discovered the precession of the equinoxes, which only amounts to fifty seconds a year; and calculated it with an error of only nine seconds. He found the position of the sun's apogee with exactness; and the eccentricity of the sun's (*i.e.*, the earth's) orbit with but slight error. He determined the period of the moon's revolution with respect to the sun, the periods of revolution of the moon's apse and of the line of nodes, and in effect the distance of the moon.

He discovered that the moon moved during the month with a varying velocity from west to east; and this discovery illustrates how it became natural to pass from the theory of crystalline spheres to that of epicycles and eccentrics. An epicycle is a circle carried on another called the deferent, the centre of the former being on the circumference of the latter. If a body revolve uniformly on the circumference of an epicycle which itself moves around on the deferent, a little consideration will show that, to one situated at the centre of the deferent, the body will appear to move with varying velocities. Hence such motion could be used to explain the moon's varying motion. An eccentric is a circle capable of moving about a point not its centre, or which is viewed from a point not its centre. If a body moved uniformly in such a circle it would appear, at the point of view referred to, to move with varying velocity. Hence motion in an eccentric could be used to explain lunar irregularities. Hipparchus discovered that the place in the moon's orbit at which the body appeared to move most quickly, was itself in motion. This he could explain by supposing the eccentric to turn about the earth. In some cases in the explanation of irregularities in the moon's motion, eccentrics and epicycles were combined; and epicycles were grafted upon epicycles in a wonderfully ingenious and wonderfully complex manner. It is quite impossible in an elementary lecture like the present to enter into details. Suffice it to say the methods were adequate to explain very many of the complex motions of the moon and of her orbit with which astronomers had then become acquainted. They were also adequate to explain the various motions of the planets.

It must not for one moment be supposed that this method of representing the motions of the moon and planets was something so crude as to be received only with a smile by people so knowing as ourselves. A writer on the lunar theory says, "Our expressions (for the moon's motion), composed of periodic terms, are nothing more than translations into analytical language of the epicycles of the ancients:" though, of course, he goes on to point out, our expressions are derived from the fundamental

laws of force, and we may express the motion of the moon with any degree of accuracy. Ptolemy belonged to the second century of the Christian era. His system, which placed the earth at the centre of our system, and which was an attempt at an hypothesis that should account for the facts observed by Hipparchus and others, continued to be received until the beginning of the sixteenth century, when Copernicus developed the heliocentric system now received. Copernicus, however, continued to employ epicycles and eccentrics in explanation of lunar and solar inequalities. "Kepler, finding that the predicted places of the planet Mars, as given by the circular theories then in use, did not always agree with the observed ones, sought to reconcile these variances by other combinations of circular orbits; and after a great number of attempts and failures, and eight years of patient investigation, he found it necessary to discard the eccentrics and epicycles altogether, and to adopt some new supposition. An ellipse with the sun in the focus was at last his fortunate hypothesis, which was found to give results in accordance with observation; and this form of orbit was, with equal success, afterwards extended to the moon."

Kepler made Newton possible. But the whole of the vast problem was prepared for Copernicus, Kepler and Newton by the Greeks: and had it not been for the destruction of Greek nationality in both Greece and Egypt, I am quite certain the problem would have been solved by the Greeks themselves a thousand years before its solution was reached by Copernicus, and Kepler, and Newton.

It is of special consequence to note that in their struggles to solve the problem of the universe, this incomparable people taught mankind scientific method,—to observe, and to frame hypotheses or generalizations, to explain or represent the observations.

It is characteristic of the Greeks that, ardent students of the heavens though they were, they never came under the influence of the superstition of astrology. Sir George C. Lewis, quoting Lætronne, says, "No trace of astrology occurs in the remains of the scientific Alexandrine School down to the Roman conquest of Egypt; and there is no mention of a natal theme calculated for any of the Ptolemies. This fact is the more important inasmuch as the writings of the Egyptian astrologers must have been deposited in the Alexandrine library from the reign of Ptolemy Philadelphus, and have been accessible to the astronomers of Alexandria in Greek translations."

I have shown that if we did not derive our modern arithmetical notation from the Greeks it was no fault of theirs; that the theory of numbers is due to them; that we owe to them our algebra, and therefore modern analysis; that our geometry is derived from them; that they laid the foundation of our infinitesimal calculus; that scientific astronomy and



the explanation of the system of the universe is to be ascribed to them, with its inspiring influence on modern science ; that we must thank them for conceptions of law in nature and for proper scientific method. Nor does this by any means complete the list of our obligations.

**Physics.**—Both Euclid and Ptolemy wrote treatises on optics. Euclid was acquainted with the law of reflection. Ptolemy was acquainted with the principle of refraction, and even invented a contrivance for measuring the amount of refraction in water for various angles of incidence. And so the science of optics was founded.

Archimedes wrote two books, “*De iis quae in humido vehuntur.*” You all recall the “*Εἰρηνά*” story, which marks the foundation of the science of hydrostatics.

The science of mechanics was created by the Greeks; and their mechanical ingenuity was not behind their scientific treatment of this subject. A mechanical bird was said to have been invented by Archytas (B.C. 400). In Aristotle’s time the principle of the lever was understood, and certain conceptions of the parallelogram of forces and of the principle of virtual velocities appear. Archimedes, however, placed mechanics on a scientific basis by devising mathematical proofs of propositions in this subject. He treated both of the mechanical powers and of propositions in centre of gravity. He was the inventor of many mechanical contrivances, amongst others, of the water screw ; and no doubt would have invented many more had a patent law protected him in the enjoyment of his rights.

The writings of Hero, who belongs to about 125 B.C., seem to furnish the best notion of the condition of mechanical invention amongst the Greeks. He placed engineering and land surveying upon a scientific basis.

The Greeks speculated respecting the ultimate constitution of matter, having their atomistic schools with Democritus and Epicurus at their heads. I make little of these speculations respecting the ultimate constitution of matter. The speculators were insufficiently armed with facts. It was a struggle to generalize from insufficient data ; rather perhaps the usual struggle of the metaphysician to generalize without data. What facts have been reached respecting the ultimate constitution of matter, have been reached by the physicist and by the chemist. The physicist and the chemist are laborious and conscientious and prove many things. The metaphysician is neither laborious nor conscientious, and proves nothing.

I leave to others better qualified than myself, to speak of the struggles of the Greeks towards a scientific basis in natural history and in medicine.

If, ladies and gentlemen, you recall what I have said respecting the

debt of the modern world to Greece, you will see that I have covered almost the circle of the sciences : Arithmetic, theory of numbers, algebra, and thence all analysis, geometry, infinitesimal calculus, astronomy, optics, hydrostatics, mechanics and mechanical invention, engineering, a proper conception of pure science, proper scientific methods, the suggestion of law amid the confusion of natural phenomena,—what a remarkable enumeration it is. What an incomparable people the Greeks were. If we are to think of any people as a chosen people ; if we are to think of any people as specially selected to make a revelation to mankind, surely the Greeks, with their surpassing genius, with their “supreme and universal excellence,” were such a people. And the revelation, the Gospel, in this case was science and scientific methods. The science of the Greeks is that which brings them nearest to the modern world. The science of the Greeks created, or made possible the modern world. We owe them a boundless debt for their art, for their literature, for their science. But of these, who that knows the modern world will say that their science is the least ?

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*THE STUDY OF EUCLID IN OUR SCHOOLS—ARE THE  
RESULTS SATISFACTORY?*

G. HAMMILL, B.A., COLLINGWOOD.

Euclid as a mental training being admitted by all to rank among the first of studies, I need not spend time in presenting its excellences to you ; but will at once proceed with the question I wish to discuss, namely, "Are our pupils obtaining all the benefit possible from the study of Euclid?"

To study the subject properly, we all know means to do more than to memorize the propositions given to us by Euclid. Excellent though they be, there are many others equally as good which can be worked out by aid of these, and it is only by studying Euclid's propositions in such a way that we may not only know them, but that they may aid us in the solving of other problems, that we can be said to have mastered them at all.

Are our pupils of to-day studying the subject in the manner I have indicated? Those of you who have been reading the answers to the questions set on this subject at the midsummer examinations, will agree with me that in very many cases their work does not seem to indicate they have. My own experience in this line is confined to the third form papers of the past two years, the deductions on both of these papers being of so elementary a nature as to warrant a solution of a fair proportion of them by all candidates who had studied the subject with any degree of intelligence; and yet I think I am safe in saying from thirty to forty per cent. of those writing failed to solve a single deduction. Omitting those who evidently knew little of anything in connection with the subject, I would refer especially to that class whose weakness seemed to be concerning anything which to their mind bore the ear-marks of a deduction. How often did we meet with the candidate who worked every proposition accurately, but when the end of the last was reached he stopped short, or if he did go on, it was in that aimless way which clearly indicated that his knowledge of the paper was exhausted, and that he was merely trying a random shot in the hope that it might hit something. The same thing has come to you all in connection with your own classes, when a student confidentially informs you that she thinks she knows all the propositions but she is *no* good at deductions.

Why is it that this thing occurs so frequently? It is not that the pupil has merely memorized the propositions, for a change in the form of the figure, or in the placing of the letters on it will soon detect that. No, they seem to have watched the figure and followed every statement of the proposition on it, thus seeing the reason for the truth of each, and yet having learned the proposition in this way, they seem to be unable to make any use of that knowledge in the solution of other problems.

As a remedy, some would have our papers composed entirely of deductions. This, I admit, would be the ideal Euclid paper, but would it help the matter which we have in hand? If under the present method we find pupils who depend entirely on the propositions, a paper composed altogether of deductions would show them that they could not place their trust where they formerly had, but would that alone assist them any in the solving of deductions? I am afraid it would leave their score the same as before, minus the marks on the propositions they used to get.

Is the trouble not to be found in the fact that the pupil having each step of the proposition with all the details before him has nothing to do but to follow each statement as given and note the truth of it? All individual effort therefore being shut off, he becomes merely a medium for the transmission of the particular thoughts of others, and acquires none of that self-dependence which is so necessary in the solution of new problems.

Some, though, would have us teach Euclid without the aid of a book. This, no doubt, would remedy matters somewhat, but is not always practicable. To a class fresh from the Entrance, I believe a text-book should not be given, but that they should be led gradually on to some knowledge of the subject by a series of elementary problems, some of them being Euclid's propositions or portions of them, and others arising out of them. This method will arouse the interest of the young pupil, and much knowledge will be unconsciously obtained without forcing him to learn from the book certain stated problems which he may find wearisome and which may cause him to acquire a distaste for the subject.

It is difficult, however, to continue this method after the first year, as it gives additional work to the teacher, and to the student at that stage it is well, I think, to have some book of reference.

We find, though, in the present crush of subjects which exists in our schools, it is difficult to get a place for everything in our timetable, and so it happens that Euclid is not taught in any shape in

the first form of a majority of our schools. It is then begun in the second year of the course with the text-book in the hands of the pupils, and the results are often as I have indicated.

What, then, is the remedy I would offer? To my mind, as I said before, the trouble seems to lie in our text-book doing too much for the pupil, and by preventing him from sharing in the work, fails to properly encourage his reasoning faculties, the development of which is so necessary for a successful study of this subject.

Those of you who have read Salmon's conic sections will remember how he often omitted a portion of his proof, and we have struggled for many minutes with it to get the connection, although he had passed it over with what seemed his favorite expression: "It can be easily seen." At the time we may have felt that we would rather he had made it more easily to be seen, and yet we know that the difficulty of obtaining it impressed it on our minds in a way that would not have been done had it come more easily to us. My idea, then, is, that it would be better if we had something of this nature in connection with our propositions in Euclid.

Why should the entire proof of every proposition be given to the pupil? Is he not able to master certain portions of it for himself? And if he does this will he not feel that to a certain extent he has found out something for himself, a feeling which cannot fail to encourage him in future efforts. But the matter of encouragement is not all. In solving most of Euclid's propositions we find the proof of such a length that the pupil is not liable to take it all in a grasp, and if he follows it through from the text-book, we often see that he goes on from one statement to another as given, until he suddenly finds he has reached the desired end, but without having any idea why it was more liable to be reached in that method than in any other. Surely this is not the intelligent method of proceeding. I believe the pupil should always have a general idea of the method of proceeding before attempting to work out the details; and in solving deductions this is the method that must be followed if we would accomplish anything.

When asked to prove a certain statement true, do we not reason that it would be, if some other statement were true and this other statement would be true if a third one were, and so on until we arrive at something we know to be a fact? Thus having staked out the road we proceed to the construction of the different parts, and all our energies are concentrated on these separate portions. True, we may meet with difficulties, and often of such a nature as



to convince us that they cannot be surmounted, but this need not make us despair, as it merely tells us we must pull up our former stakes and attempt to lay out our road by a different route.

If our text-book, then, instead of giving the propositions in detail were merely to give a general idea of the method of proceeding and allow the pupil to work out the details for himself, I imagine we would have much better work done in this subject. For example, in proving the exterior angle of a triangle equal to the sum of the two interior opposite angles (I. 32), if our text-book said: "Divide the exterior angle into two parts by a line parallel to one side of the triangle, then by parallel lines prove one portion of the angle equals one of the interior opposite angles and the other portion equals the other;" and the pupil were left to complete the proposition, he would feel that he had accomplished something for himself, and besides would have some idea of the method of attempting a new problem when he met one. Again, in parallelograms on the same base and between the same parallels are equal in area (I. 35), it should be enough to tell the pupil to prove the two triangles equal and then take each off the whole figure, leaving in each case a parallelogram. Or again, in parallelograms on equal bases and between the same parallels are equal in area (I. 36): after drawing the two joining lines, if the pupil is directed to prove the quadrilateral obtained a parallelogram, and then to prove it equal to each of the original parallelograms, he should be able to work out the entire proposition. These are only a few examples, but will tend to show the method in which I believe the propositions should be presented to the pupil, and while the ones I have cited may be better adapted to this method than some others, still I believe that on examination there will be found something in every one which might well have been left to the individual effort of the pupil, if the general direction had only been pointed out to him.

I may be met with the argument that it is the work of the teacher to point out to the pupil the main features in the proof of each proposition, and thus direct his efforts in the way I have indicated. I admit something may be done in this direction by the good teacher, and I would fain believe we are all good teachers in this subject, but if the teacher is able to accomplish all that is necessary in this line, and the results are such as I have stated, we must conclude that many of us are not doing our duty in this matter. No, I prefer to think the evil exists, notwithstanding the

efforts of our ablest teachers, and I believe it will exist to a greater or less extent until some change is made in the method of presenting the propositions to our pupils. For to all our pupils the text-book must be the resort on many occasions, and while the proof is all given clearly to them there, it is little assistance they look for from the teacher in connection with the propositions. Besides, there are always a certain number, not lacking brains, but slow of thought or easily confused, who seldom thoroughly grasp a point until in the quiet of their own room they have had time to think it out for themselves. To these, especially, the text-book must be the final resort, and it is well that it should be placed before them in the form calculated to do the most good.

I remember listening on one occasion to a practical farmer speaking on the question, "Why do our boys leave the farm?" and his remedy for the evil, for he undoubtedly considered it an evil, was to give them some interest in connection with the farm: not to make them merely "hewers of wood and drawers of water," but to let them have something of their own to work for that they might feel they had a share in all that was accomplished. This was the burden of his remarks, and I well remember with what enthusiasm he exclaimed, "Give the boys a chance."

So in connection with this subject I would conclude by saying, "Give our pupils a chance." Let them not feel they are merely "hewers of wood and drawers of water," but let them rather feel that in the proof of these propositions they have assisted in the work, and besides guiding them on proper lines, you will find an interest created which cannot fail to help them in future work. This, I believe, is what should be done, and this, I believe, cannot be properly done while the propositions in their present form are placed in the hands of the pupils.

*MATHEMATICS IN THE SCHOOL-ROOM.*

W. J. ROBERTSON, B.A., LL.B., ST. CATHARINES.

I am, on this occasion, the victim of a yielding, good-natured disposition. The persistence of your secretary accounts for my misfortune in having to read a paper before you to-day, and your misfortune in having to listen to one from me. In truth, I felt completely non-plussed, perplexed, and cast down, when called upon to choose a topic for a brief paper—perplexed, because it seemed to me that we had pretty well exhausted all interesting popular subjects of discussion. We have declaimed with much vigor and earnestness against our oppressors, the framers and concoctors of our numerous bewildering curricula. We have protested, but in vain, for our last days are worse than our first. We have pointed out repeatedly the degradation of mathematical studies in our schools; but we have been but “voices crying in the wilderness.”

I believe one of the most aggressive and enthusiastic prophets of Israel once grew weary, and became utterly despondent in his war against the idolatry of his people; therefore, is it to be wondered at, that we poor mathematical teachers, should at length grow weary in protesting against the “idols” of the Education Department? For we are fighting against a “stiff-necked generation,” a generation that has hardened its heart against all reason, remonstrance and reform.

In my humble opinion, one effect of the loss of hope is to induce a tendency to retrospection. If the golden age is not in the future, then, perchance, by a stretch of imagination we may endeavor to convince ourselves that it was in the past. If, then, my remarks take the reminiscent vein, it may be that you will not be wholly wrong in concluding that I have little hope of an early improvement in our mathematical condition, and, therefore, feel disposed to dwell upon the glories of the past rather than indulge in anticipations of a brilliant future.

This line of thought naturally leads to the remark that the whole course of mathematical study has within the last thirty years undergone many changes. In miniature there has been a “rise and fall” of empire. Anything cruder or more unsystematic

and unscientific than mathematical teaching in the High or Grammar Schools of thirty years ago cannot well be imagined. In a paper given a few years ago before this Association, I dwelt upon this phase of our educational development, so I will not do more than refer to the fact now. It has also been pointed out what a marvellous change took place in mathematical teaching and study about twenty-five years ago. This was a genuine mathematical revival, a renaissance of a very vital character. For many years mathematics dominated in our schools and colleges, and the high standing of the honor graduate of Toronto University in mathematics was of more than provincial fame. I may go a step further and say that the reputation for mathematical breadth and thoroughness still lingering about University College honor men is, to a considerable extent, based upon the foundation laid during the days when the study of mathematics in our schools was a passion, not a drudgery. That another change has come over us—that other educational ideals are now erected for us to fall down and worship we all know too well. Just how much we have retrograded, and how much we are retrograding is not appreciated by any so much as the teacher who taught twenty or twenty-five years ago. Permit me to give you some illustrations from my own experience. Shortly after I began my work as a mathematical teacher, I found that no one text-book could furnish a sufficient supply of problems, in either arithmetic, algebra, or trigonometry. I had to be continually on the alert for new problems, and the constant look-out led to a large collection gathered from many sources, which were, many of them, subsequently published in book form. Looking to-day over this collection, and noting their difficulty and wide range, I am impressed with the fact that very few pupils now could find the time, or have the mathematical knowledge necessary to grapple with them. Then hours were given daily by students to individual effort in solving problems, working deductions, etc. To-day, little home-work is done, and in consequence the teacher must carry the mathematical weaklings along the smoothest paths and up the gentlest of inclines. Then the maximum was eagerly sought—now the minimum—of mathematical training.

Another illustration may be given, which will be of interest to our younger mathematical teachers. We all know that we deem ourselves fortunate if, in a large school, we can now obtain a class of half a dozen honor students in mathematics. But let me say, that in the golden age it was no unusual thing to have a score of

students taking the honor work of the junior matriculation examination, while perhaps a dozen or more would be pursuing the honor work of the first year at the University. Sometimes the curriculum went beyond the first year—for it fell to my lot to teach pupils the honor work of the second year. In these days we counted confidently on our honor candidates of the first year winning the scholarships in mathematics—and we were seldom disappointed. I might dwell at much length upon the contrast between the old and the new, but it is a painful subject to one who has witnessed both phases. One remark, however, in justice to the teachers should be made. The decline in mathematics has not been due to the character of the teaching, but to the educational policy of the Department, which renders mathematical efficiency almost impossible. In fact, were it not that mathematics are better taught than any other subject of study, the mathematical standard of our secondary schools, and therefore that of our universities, would be much lower than it is.

But, it may be fairly asked, was it in the best interests of education that so much time should be given to one line of study? While this mathematical craze lasted, did not subjects of fully equal importance suffer? What about the study of classics, moderns, literature, history, science? Were not these shamefully neglected? Was it wise to place upon a pupil, with but little natural aptitude for mathematics, such a burden? And that suggests another question. Are mathematicians not inclined to overrate the importance of their pet studies, and to neglect the more humanizing, liberalizing and broadening studies of classics, moderns, literature and history?

To the question whether other departments of study were not neglected in the interests of mathematics, I can answer partly from personal knowledge, partly from the testimony of others. In classical studies it is frequently asserted there has been no gain since mathematics has been degraded from the post of honor. Experienced teachers of classics say that the status of classical studies has not been raised in recent years—they assert that the contrary result has been reached. From my slight personal knowledge I would say the knowledge of texts, the accurate and appreciative translation from the Greek and Latin into English, has not improved; but that a considerable advance has been made in the reverse process, the translation of English into Latin and Greek. In moderns an undoubted advance has been made, and it



is in the great amount of time spent on French and German we may find an explanation why our pupils can find no time for home-work in mathematics. It seems to me that the effect of much study of moderns is mentally debilitating. In most cases the pupil that takes to moderns is mathematically lost. With this study seems to go much of the power of vigorous thought and mental concentration. A pupil can study Latin and Greek and suffer little mental injury. Why he suffers under the moderns habit is a problem for psychologists to solve. Perhaps the language I have just used may appear too strong and reflect unjustly upon modern language students. But the thought I wish to convey is, that while a few students can successfully unite moderns and mathematics in their intellectual diet, the majority cannot do so without injury to their mathematical digestive powers.

As regards science, I am sorry to have to express the conviction that, in spite of the introduction of the inductive system in our schools, the educational and practical results are very unsatisfactory. The truth seems to be that in many schools, perhaps in most, the present system of studying science by experiments is responsible for an enormous waste of time, which could be well employed in other directions. Hours are weekly devoted to unsatisfactory experiments from which the ill-developed mind of the pupils draws little, but vague and indefinite conclusions. I do not think our science teaching can be said to be successful. One reason for this is the fact that the necessary mathematical foundation is so often lacking. On the other hand, it must be said that some subjects are now better taught and more thoroughly mastered than they were in the former days. I will refer to one in which I am somewhat interested, that is, the subject of history. There is no doubt whatever that history is now better taught, and with better results, than at any time in our educational life. Why, it is not necessary to examine; I simply state the fact. That it deserves the attention it receives, and much more, no one who knows its value as an educating force will for a moment dispute.

Then remains still the question: Do not mathematical teachers over-estimate the value of their particular department? Are they not disposed to undervalue all other departments, and make a hobby of their own, to the detriment of a good, general education?

I confess that my observations and experiences incline me to believe that some of our mathematical enthusiasts do ignore the

importance of other studies than those in which they are interested. Some of the utterances at our own Association indicate that there are teachers who would place a mathematical burden upon the shoulders of our pupils that only the most gifted could bear. As a class, mathematicians have a very profound appreciation of the value of their favorite subject as an educative factor; but the want of a knowledge of other departments of study disqualifies them from recognizing the importance of other mental pursuits. When to this cause is added the persistent attacks of equally enthusiastic and equally ignorant adherents of moderns, classics and science upon mathematical studies, we feel in duty bound to rally around our flag, whether our cause is wholly just or not. But, as mathematicians, we ought to manifest a level-headedness, a moderation, a sound common-sense, such as mathematical studies tend to develop; and, while standing firmly for our rights, recognize that other studies have their place in our curricula.

We must also, I think, recognize that many pupils are by nature unfit for the more difficult mathematical studies. You will all agree with me in this statement, I believe. On account of this natural inability, it does not follow that they should be permitted to almost entirely neglect such studies. On the other hand, I would say that such pupils should be compelled to give considerable attention to the easier mathematical subjects, in order to develop their defective power of reasoning. But, having done that, we should stop. We cannot by any known educational process develop much mathematical power in such students—if we could, it would be at too great a cost of time and effort.

This leads to another thought, which I would ask you to consider. Are we not as mathematical teachers very conservative in our methods of teaching? Do we secure the best results possible by teaching as we do teach—by keeping to stereotyped methods of teaching such a subject, for instance, as geometry?

I do not wish to invade the territory of the gentleman who is to introduce the subject of the value of Euclid in our mathematical curriculum, but I would like an expression of opinion from mathematical teachers as to their experience in teaching Euclid. I will now give some observations of my own on this subject. The first remarkable fact I notice is, that girls, as a rule, are lamentable failures in working deductions. Exceptions there are, of course, but the rule, so far as I have observed, holds good. Intelligent

girls who can solve difficult questions in arithmetic, algebra and trigonometry, cannot make any satisfactory progress in solving deductions. To a less extent the same statement holds good of boys. Noticing this fact, one is led to inquire into the cause of this mental inability. Is the student to blame, or does the difficulty arise from the nature of the subject? To me, it seems, that the trouble is due to both student and subject. To the student, because the working of deductions demands mental qualities of an unusual order. I do not believe any student can be successful along the line of study of which Euclid is an illustration, without marked powers of construction and invention. That is only another way of saying that such a student must be possessed of a strong and well-ordered and well-trained imagination. Certain departments of mathematical studies require as much power of imagination as that possessed by the great poets. For that reason great mathematicians are as rare as great poets. If this analysis is correct, the reason why girls fail in Euclid is, they do not possess the constructive imagination. No amount of time or training can make good this defect, as no amount of time and effort will develop the ordinary poetaster into a Shakespeare or Milton. Looking then at the meagre results we obtain from the study of Euclid, we may fairly ask, are we wise in persisting in keeping in our mathematical curriculum a study which, while admittedly of some value in developing the power of deductive reasoning, yet reaches its conclusion by so tortuous a road, and which in the order of arrangement of its propositions, violates every sound pedagogical principle?

There are other topics which teachers of Mathematics might well discuss to advantage. For instance, how much time should be given to home-work? Should the teacher use the black-board freely? if so, when? Is individual work in the class, if possible, preferable or not to the discussion of most of the problems given before the whole class? What should be the order of treatment of mathematical subjects?

But this paper is already sufficiently long. It is made up of odds and ends of scraps gathered during a fairly long experience in teaching Mathematics. If it be the means of causing anyone to think more closely about our mathematical status, or about our difficulties and duties as teachers, or about possible improvements in our methods of teaching, the little trouble I have taken will not be in vain.

## HISTORICAL SECTION.

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### *IMMIGRATION FROM THE UNITED STATES INTO UPPER CANADA, 1784-1812—ITS CHARACTER AND RESULTS.*

LIEUT.-COL. E. CRUIKSHANK, FORT ERIE.

The purpose of this paper, as its title indicates, is an attempt to appraise the volume and influence of immigration from the United States from the close of the American Revolution until the beginning of the war of 1812, which undeniably marks the end of an epoch in the history of this province. The first permanent settlement actually began a hundred and twenty years ago on the west bank of the Niagara river, on and around the site of the present town of that name, under the personal direction of Lieut.-Colonel John Butler, then in command of the noted corps of loyalists known as Butler's Rangers. Since the date of the conquest there had been no effort to reoccupy any of the French posts, and the small and unimportant stockade called Fort Erie was the only military station within the present Province of Ontario. A stray white trapper from time to time pitched his tent or built a hut on the northern shore of the lakes, but there had been no serious attempt at settlement anywhere.

In the winter of 1778-79, Butler had erected a large log building at Niagara, which was occupied by his battalion as its winter-quarters for the next five years, and ever afterwards known as the Rangers' Barracks. The great difficulty experienced in supplying the garrison and a numerous body of refugee loyalists who had sought shelter there, induced General Haldimand to propose the establishment of a settlement in the vicinity. Finally, Lieut.-Colonel Mason Bolton, the commandant at Fort Niagara, reported on 4th March, 1779, that "an opportunity now offers to make a beginning by encouraging some of the distressed loyalists lately arrived at this port for His Majesty's protection. With the little stock they have brought, the second year they might support

themselves and families, and the third year they might be useful to this post."

During the next summer the country of the Six Nations was devastated by Sullivan's army, and its whole population thrown back upon Fort Niagara for subsistence. On September 13th, Haldimand formally applied for leave to form a settlement, which was approved by Lord George Germain, in a despatch dated 17th March, 1780, and received sometime in June. After conferring on the subject with Butler, who was then in Quebec, Haldimand authorized Bolton to begin the settlement, in a letter dated 7th July, 1780. The settlers were to hold their lands from year to year. No rent was to be required of them. They were to be furnished provisions for twelve months, with all necessary seed-grain and agricultural implements. The produce of their farms over and above what was required for their own maintenance was to be sold to the garrison at prices fixed by the commandant.

On the 17th December, 1780, Butler reported that four or five families had taken up lands and built houses. A year later he stated that the settlers had maintained themselves since September, 1781, having drawn only half rations for some time previous. A return of 16th August, 1782, showed that sixteen families, numbering sixty-eight persons, had settled. They had cleared 236 acres and had grown that year 1,178 bushels of grain and 630 bushels of potatoes. They already possessed a considerable number of horses, horned cattle, sheep and swine. A few months later they united in a petition to the Governor, praying for leases or other security for the tenure of their lands and protesting against the regulation obliging them to sell to the garrison at prices fixed by the commanding officer. Still, the number of settlers steadily increased, and the quantity of cleared land was officially reported next summer as 713 acres. The negotiations for peace failed to inspire these exiles with much hope of returning to their former homes, and, in fact, Colonel Butler declared that none of his men "would even think of going to attend courts of law in the colonies where they could not expect the shadow of justice . . . and that they would rather go to Japan than go among the Americans where they could never live in peace."

Finally, in June, 1784, the remainder of his battalion was disbanded after seven years' service. But Lieut.-Colonel DePeyster, who had succeeded to the command at Fort Niagara, reported at the close of the month that the disbanded men were slow to signify



their desire to cultivate Crown lands, and that he had only about one hundred names on his list. "They seem to dislike the tenure of the lands," he added, "and many wish to fetch their relations from the States by the shortest route. I have permitted some of the most decent people to wait your Excellency's pleasure on that head, but last night seventy of the people who refused to sign went off without leave, with the intent never to return."

Eventually a majority of the Rangers decided to remain, and within another month the roll of actual settlers at Niagara had swollen to 250, making with their families a body of 620 persons. Before winter set in their numbers were considerably increased by the return of comrades, and the arrival of friends and relatives driven from New York and Pennsylvania by the persecution to which they were subjected.

During the late summer and autumn of the same year another body of 1,568 disbanded soldiers and other loyalists, chiefly belonging to the Royal Regiment of New York and Jessup's and Rogers' corps, settled in nine townships assigned to them on the St. Lawrence and Lake Ontario, between Point au Baudet and the Bay of Quinte. Nearly two thousand others were dispersed at Montreal, Chambly, St. John's, Sorel and the Bay of Chaleur, while about three thousand had sailed for Cape Breton. A number fled from Pittsburg and Redstone to Detroit, and settled in conjunction with some of the disbanded Rangers on both sides of the river. Within a year more than ten thousand loyalists were settled west of the Ottawa. According to General Campbell's muster of 4th November, 1784, not less than 28,347 had arrived in Nova Scotia and New Brunswick, while the former white inhabitants of those provinces did not exceed fourteen thousand, of whom the greater part had also come from New England, and are described as having "discovered during the late war the same sentiments which prevailed in that country."

A very large proportion of these immigrants were unquestionably people of education and high character. The list of proscribed citizens of Massachusetts is said by Mr. Tyler to read "almost like the bead-roll of the oldest and noblest families concerned in the founding and building of New England civilization." The exiles from other colonies were not less numerous and respectable. "There were, in fact," as Mr. Hosmer frankly states, "no better men or women in America as regards intelligence, substantive good purpose and piety."

But their losses and suffering during seven years of civil strife had inspired them with an almost implacable animosity for their triumphant enemies. They had risked their lives and fortunes for the maintenance of a great empire comprising the whole British race, and as a penalty were doomed to end their days in poverty and obscurity. One of the Commissioners deputed by Congress to superintend the evacuation of the city of New York was moved to comment upon the impolicy of driving them out in a truly prophetic strain. "We shall find a city destitute of inhabitants," he wrote to Washington, "and a settlement made upon our frontiers by a people, whose minds being soured by the severity of their treatment, will prove troublesome neighbors, and perhaps lay the foundations of future contests which, I suppose, would be for the interest of our country to avoid."

The memory of their wrongs was not readily effaced, and as late as 1794 we find Lieut.-Governor Simcoe declaring that there were few families among the inhabitants of Upper Canada "who cannot relate some barbarous murder or atrocious requisition on the part of the rulers of the United States."

The number of immigrants that came in during the five or six years following the conclusion of peace, who were generally known by the rather disparaging title of "late loyalists," was undoubtedly considerable, but no precise statistics are available. It would probably have been much greater had the tenure of the lands been placed on a satisfactory footing.

Long, whose book of travels was published in 1791, states that "the settlements in Upper Canada bid fair to be a valuable acquisition to Great Britain, and in the case of a war with the United States will be able to furnish not only some thousands of veteran troops, but a rising generation of a hardy race of men whose principles during the last war stimulated them to every exertion at the expense of their property, family and friends. There was, however, when I resided in that country one cause of complaint, which, though it may not immediately affect the welfare and prosperity of the present inhabitants, or an increase of population to the unlocated lands, is big with impending danger. All the land from Point au Baudet (the beginning of the loyalist settlements on the St. Lawrence), to the head of the bay of Kenty, which at this period, I am informed, contains at least 10,000 souls, is said to be liable to the old feudal system of the French seigneuries, the lords of which can claim title to receive some rent or exercise some

paramount right, which though it may be at present very insignificant and perhaps may never be insisted on, yet renders every man dependent on the lord of the manor, and in process of time as land becomes valuable the raising of these rents or exercise of these rights may occasion frequent disputes."

In December, 1784, and again in April, 1785, these settlers had petitioned that the district lying to westward of Point au Baudet should be separated from the Province of Quebec, and that "the blessings of British laws and of the British Government and an exemption from the French tenures may be extended to the said settlements." They renewed their appeal in a series of loyal addresses in November and December, 1786, and about a year later the magistrates of Cataraqui, in a letter to Sir John Johnson, concurred in representing that "the object which first presents itself as of the most importance is the tenure of the lands. The conditions on which they have been granted to the loyalists in this province are so different from what they have been used to, and so much more burdensome than those offered to our fellow-sufferers in Nova Scotia and New Brunswick, that they are universally disagreeable."

Major Mathews, who had been sent to inquire into the complaints of the inhabitants, indicates in his MS. diary, under date of 31st May, 1787, that similar dissatisfaction extended even to the settlements at Niagara.

"This day came in eight or ten men from the States to see their friends, said to be good loyalists and wishing to settle with them. With regard to the settlement at this post (Niagara), it appears to be in the same thriving and prosperous state below, but notwithstanding the testimony of loyalty and good order given by the settlers, attested in their offer of assistance to Major Campbell in defence of this post, a few of them hold the principles and doctrines of Mr. McNiff. Major Campbell is well informed of them, and has a watchful eye upon their conduct. Colonel Butler told us these discontents amongst the settlers proceeded from what they consider to be an improper choice of the commission of the peace, wishing themselves to have the nomination of their civil officers and to hold committees for the choice of them and other interior management of the settlement, agreeable to a letter to that effect which it seems was circulated from Mr. De Lancy through all the upper settlements, and which is considered by all the gentlemen in opposition to that doctrine with whom I have conversed, to have been the

origin of the McNiff party. . . . They are also jealous of the tenure in which they hold their lands, and cannot reconcile the idea of the Canadian one."

At this time the Land Board for Niagara seem to have exercised some discrimination in allotting grants, as the minutes record that the Board proceeded to examine "into the loyalty and more particularly into the character of all such persons as appeared before them. To such as were approved they administered the oath of allegiance, and directed the surveyor to give them a ticket specifying the quantity of land to which they and their families were entitled."

By this time the Quakers and similar religious societies in the Middle States began to consider the advantages of removing into a land, where, to use the language of the British consul at Philadelphia, "they can enjoy once again the blessings of His Majesty's Government, and be exempt from those evils which a relaxed system of laws, a ruined trade, and oppressive taxes have brought upon them. . . . Already has the country of Canada presented itself. Some have explored it, and many others may be induced to follow and accept the terms of colonization there held out. Most of the people I allude to are of the sect called Quakers." On 10th November, 1789, he added that "some very useful citizens have migrated into Canada from New Jersey and Pennsylvania, and it has been hinted to me that there are many others ready to follow if they were encouraged; the late scarcity in Canada gave some check to the disposition to migrate thither, but I am convinced it would soon revive if advantageous terms of settlement were promulgated and generally known; a measure, however, which, as it would be viewed with a very jealous eye by the United States, requires very discreet and careful management."

We possess an official return of the number of persons who entered Canada by way of Oswego between 1st May, 1789, and 1st November, 1796, making an aggregate of 819, of whom 265 were on their way to Niagara, 400 to Kingston, and 154 to Lunenburg.

Lieutenant-Governor Simcoe brought out a battalion of about 430 officers and men, which seems to have been chiefly composed of American loyalists who had emigrated to England and availed themselves of this opportunity of returning to America. It was disbanded in 1805, and nearly the whole corps settled in Upper Canada. Simcoe displayed great activity in promoting emigra-



tion from the United States from the day of his arrival. Before leaving Quebec he issued a proclamation offering free grants of land in the new province to persons desiring to become settlers. In one of his earliest despatches to Mr. Dundas he states that he had been assured by a correspondent in Pennsylvania that a large number of persons in that State were disposed to remove to Upper Canada, and that this agent had "held out to them that language of encouragement" which Simcoe had directed him to use. The Rev. Samuel Peters, a loyalist of Connecticut, had already been recommended by him as the Anglican bishop of the Province, and he had proposed that Mr. Peters should be authorized to return to that State to invite the loyal clergy of the Church of England and such Puritan divines as would accept its doctrines, to remove thither with their parishioners. He had since been assured by persons living in Connecticut that the "ecclesiastical establishment suggested by him would be the most likely means of obtaining emigration from that country, although the delay of Great Britain in giving a free constitution to Upper Canada had made a sensible alteration in the disposition of the Loyalists there." He also pointed out that while it was understood that all persons born in the United States before the independence of the country was recognized, were entitled at any time to resume the full privileges of a British subject after taking the oath of allegiance, this right did not extend to their children born in the United States since the treaty of peace, and suggested that an Act should be passed for their relief. Mr. John Munro, of Lunenburg, had already reported that immigrants were flocking in with all their property from the United States, and Simcoe determined to send a confidential agent to communicate with a large body of Quakers, who "had intimated their desire to remove to Canada, but were too wary to commit their views to writing." He still anticipated that the influence of the Anglican clergy in Connecticut would be the means of promoting immigration from a state which was already over-populated, and requested that his proclamation might be reprinted in various West Indian newspapers as the best means of circulating it in the United States, "the land-jobbers of which are industrious in preventing them from being diffused from this country." An efficient provision for higher education was also of the highest importance, as otherwise "the gentlemen of Upper Canada will have to send their children to the United States, where by habit, intercourse and assiduous design in their instructors, their British



principles will be perverted and the loyalty which glories in the honest pride of having withstood all the tempests of rebellion will be totally undermined and subverted."

Dundas, however, was not strongly inclined to second Simcoe's ambitious designs for promoting immigration, as on the 12th July, 1792, he replied:

"With respect to great emigration I am of the opinion that in the very infancy of the Province such emigration would not be productive of all the good results your mind would suggest. Population is often the effect, but never the cause of prosperity, especially an ingrafted population, outrunning all laws, regulations, usages, and customs which govern us and go hand-in-hand with a progressive and regular population. I have said this not to check emigration from the United States, but that there is every appearance of sufficient numbers coming from there of their own accord without going out of your way to entice or allure them. If care is taken to render the situations settled under your care comfortable, their fame will naturally spread and attract a sufficient emigration. Nothing could be more justly offensive to other nations, and especially the neighboring States, than to make the emigration of their subjects a professed and avowed object of our Government."

To this Simcoe rejoined that he had never harbored the idea that the British Government should encourage immigration by an "overt act which might justly offend that government which he was convinced lay in wait to take advantage of such conduct," but unless the Province was peopled it could not pay its way for many years. The immigrants from the United States, he said, were fully aware that they must be industrious, and from experience were generally superior to Europeans. He continued to report from time to time that there was every prospect of a very large immigration, and announced that he had promised to the Quakers, Tunkers, and Mennonites the same exemptions from military service that they had formerly enjoyed under the British Government.

Mr. Peters sent out from London 51 families of loyalists, consisting of 186 persons who were settled at Kingston and in the adjacent township of Pittsburg.

In 1793 Simcoe considered it expedient to deviate from his original policy of granting not more than 200 acres to any one person. Entire townships were then granted to individuals or associations of persons who undertook to introduce a satisfactory number of settlers. The township of Haldimand was granted to

Abel and Hazelton Spencer; the township of Murray to Jacob Watson, Stephen Graham, John Barker and Ebenezer Cooley; the township of Hope to Jonathan and Abram Walton and Elias Smith; the township of Hamilton to Marshall Jones and others; the township of Bristol to Andrew Price, Samuel Jarvis and others; the township of Cramahé to Silas Hodges and others, and the township of Clarke to Jasper Murdock.

During the same year a settlement in the vicinity of Long Point was authorized for the convenience of a body of loyalists "of the most determined principle" from Pennsylvania and Maryland, who had despatched agents to signify their intention of removing into the Province. An epidemic among the settlers on the Genesee River is stated to have checked immigration into Canada by that route; but many of the inhabitants of that region had lands allotted to them in Canada, and announced their intention of immigrating as soon as possible. A preference for the British Government was assigned by some as their chief motive, but the majority appeared to be mainly influenced by the extortions of the land-jobbers and dread of the neighboring Indians. The arrival of a party of loyalists from North Carolina is recorded, who had learned to their surprise on arriving at the Genesee that the King still possessed dominions in North America.

De la Rochefoucauld states that many immigrants came from Connecticut, New Hampshire and Vermont, and that their principal object was to escape taxation. He thought Simeoe was too eager to people the Province to be very particular as to qualifications. The Governor's reception of a family of settlers they accidentally encountered on their arrival at Niagara, with their oxen, cows and sheep, is thus described: "We come," they said to the Governor, whom they did not know, "to see whether he will give us land." "Aye, aye," he replied, "you are tired of the Federal Government. You do not like to have so many kings. You want your old father. You are perfectly right. Come along. We like such good Loyalists as you. We will give you land."

On the other hand, Isaac Ogden, of Connecticut, who visited Upper Canada in 1795, states that "the authorities are cautious in receiving Republicans from the States, and wish only to encourage husbandmen and laborers. Clergymen, lawyers, physicians and school-masters are not the first characters who would be fostered. Many congregations would have been formed and schools opened if the policy in this respect had been different."

The prospect of a war with the United States lessened the stream of immigration, and the conflict with France diverted the attention of the Ministry. The retirement of Simcoe was generally lamented as a serious blow to the welfare of the Province.

"As soon as he was gone," says Gourlay, "not only were all his schemes set aside, but the engagements which he had entered into were grossly violated. Men of capital and enterprise had come into the Province duly furnished with cattle and implements to commence the settlement of townships granted on condition that they should be settled, had these taken from them and 1,200 acres of land offered in lieu thereof. Some accepted of this and remained, others went off in disgust to proclaim the perfidy of the British Government. Governor Simcoe had sent forth proclamations liberally inviting settlers into Upper Canada, and all that he did should have been ratified. One of his schemes was in every way judicious yet most wantonly marred. He had lined out a grand highway, which was to run from one extremity of the Province to the other, connecting his military posts and naval establishments. This he called Dundas Street, and part is represented on the map. He had no money wherewith to open this, but his purpose was to grant the margin to actual settlers on condition of each making good the road so far as his grant extended. Settlers sat down at different parts along this proposed grand thoroughfare and fulfilled their engagements, only to be grievously disappointed. The moment Simcoe was recalled, the ungranted lots along Dundas Street were seized by the people in power."

However, Simcoe's own letters prove that before his departure he had become convinced of the impolicy of making large grants of lands to "leaders who seek settlers indiscriminately amongst people not to be trusted," and he complained that "a multitude of land-jobbers in the United States, from President Washington, who was then advertising his own lands as the cream of the country, down to the lowest class of adventurers, were doing everything in their power to hinder emigration to Canada by constantly vilifying the country and endeavoring to render its government odious."

Hon. Peter Russell, who administered the government for three years, was so easily satisfied by applicants that Simcoe's successor in office as Lieutenant-Governor, General Peter Hunter, averred that he "would have granted lands to the devil and all his family as good loyalists providing they were able to pay the fees." Dur-

ing his administration a second wave of immigration had set in, mainly composed of Quakers, Tunkers and Mennonites from Pennsylvania and New Jersey, mingled with some less desirable settlers who had been involved in the "Whiskey Insurrection" in the former state.

John Maude, an English traveller, relates that in July, 1800, he met two families near Bath, N.Y., on their way to Niagara. "Their intention is to seek shelter under the British Government from the tyranny of the United States. 'We fought seven years to get rid of taxation and now we are taxed more than ever. D—n my eyes,' said one of these sons of freedom, 'was we now to have another war with England, if I would act so like a d—d fool as I did the last.' 'How like a fool, friend?' 'Why, d—n me, to fight against them.' These families were from the disaffected countries of Pennsylvania. Hundreds of them have removed, are removing, and will remove into Upper Canada, where they will form a nest of vipers in the bosom that fosters them."

A man named Ransom, living on Lewiston Heights, informed Maude that he had counted 155 families in waggons that had passed his house during the summer on their way into Canada.

"You would be astonished to see the people from all parts of the States by land and by water," Thomas Merritt wrote from Niagara on 16th July, 1800, "two hundred and fifty waggons at a time, with their families on the road, something like an army on the move; the goodness of the land is beyond all description, there is the best of crops this season I ever saw, promising plenty."

Major William Graham, of Yonge Street, late a captain in the Duke of Cumberland's Provincial Regiment, writes on 29th March, 1802, to Hon. D. W. Smith:

"I am sorry to find in the dispositions of several of the inhabitants of Yonge Street, and in particular those from the Northern States, that they show a very great contempt to the officers of the Government, both civil and military, and it is their whole desire to have the election of all their own officers. Mr. Wilson and I mean to wait on the Governor and Council to point out a few of the most officious ones amongst them. As for Fish and little Hide, the school-masters, they use all their efforts to poison the minds of the youth by teaching them in Republican books, and in particular the third part of Webster's History. Nothing would give me more pleasure than for you and other officers of the Government to look on pages 113 to 149 of the Third part of Webster's History.



"Youths educated in such books will by and by have the privilege of voting members for our Assembly and filling the House with their own kind, and when that is the case what may the Governor and Council expect but trouble/ As I had the misfortune to live in Maryland before the rebellion in America I was an eye-witness of the steps they took."

Colonel Talbot, in a letter of 27th October, 1802, declares in his usual sweeping fashion, "that the population of the Province, consisting of refugees from all parts of the United States, may be thus classed—1. Those enticed by a gratuitous offer of land without any predilection on their part to the British Constitution. 2. Those who had fled from the United States for crimes or to escape their creditors. 3. Republicans whose principal motive for settling in that country is an anticipation of its shaking off its allegiance to Great Britain. These three descriptions of persons, with a few exceptions, comprise the present population."

D'Arcy Boulton, whose "Sketch of His Majesty's Province of Upper Canada" was published in 1805, states that "Americans are continually coming in and speculating in lands. Some have made 1,000 per cent. in three years. I could instance cases where for land purchased for \$10 or \$12, a lot being 200 acres, in twelve or fourteen years £300 was refused. The bulk of the inhabitants are Americans." In another place he remarks that "many settlers have come from the United States, some even from North Carolina, but there is a space of country between Niagara and the Genesee where the roads are not sufficiently open for waggons. The mode of settlement adopted is for two or three men coming in together in the summer who raise a log-house, each putting in a field of wheat and returning for their family. They who move by land bring their families as far as the mouth of the Genesee, then take boats and send their cattle by land." The townships on Lake Erie, he adds, were settling very fast.

A very rare pamphlet, entitled "A Description of Upper Canada in a letter to Lord Castlereagh," dated 24th October, 1809, states that Americans were "coming into the Province from all quarters bringing their families and connexions with them."

Abstracts of the grants of land during the first eleven years of the century show that the total number was 11,728, comprising 2,803,071 acres. If each grant represented the family of a *bona fide* settler, this might be taken to indicate an immigration of 50,000 or 60,000 persons.



Michael Smith, in his "Geographical View of Upper Canada," published early in 1813, estimates that "one out of twelve of the inhabitants of Upper Canada are natives of England, Ireland, and Scotland, and all the children of such born in Canada make the proportion a little more than two out of ten. There are about an equal number of those who took part with the King in the Revolutionary War, who with their children born in Canada make about one-sixth part of the inhabitants; the rest with their children are Americans. Or, in other words, if all the people were divided into ten equal parts, eight parts would be natives of the United States with their children born in Canada and two parts of these eight would be what are now called Loyalists (though born in the United States before the war) with their children born in Canada. The other six would be natives of the United States and their children born in the Province. Within the term of twelve years the inhabitants of the Upper Province have increased beyond conjecture, as the means of obtaining land have been extremely easy."

The inhabitants of the Eastern and Johnstown Districts were almost entirely Scotch Highlanders and Loyalists, but the recent American settlers appear to have formed an actual majority in all the other districts except, perhaps, that of Niagara, where the Loyalists and their descendants were numerous, and the Western, where there were many French-Canadians. In the Home, Midland, Newcastle and London Districts the recent immigrants from the United States outnumbered all the other inhabitants at least two to one. Two-thirds of the members of the Assembly and one-third of the magistrates were natives of the United States, and as the juries were selected in rotation from each township as the name stood upon the assessment rolls, a majority of these were usually Americans.

American travellers agreed in reporting that they had observed among the inhabitants "a determined partiality to the United States and a decided and almost avowed hostility to the British Government."

Christian Schultz, who visited the Province in 1807, found six or seven farmers in a tavern near Presqu'Isle, on Lake Ontario, discussing the recent attack on the frigate *Chesapeake*, of which they had just been informed. "They seemed disappointed," he observes, "that I did not think it would lead to war when they expected to become part of the United States." Subsequently, in a public house at Niagara, when eight or ten persons were present,

a man declared publicly in his presence: "If Congress will only send us a flag and a proclamation declaring that whoever is found in arms against the United States shall forfeit his lands, we will fight ourselves free without any expense to them."

About the same time, in fact, we find Lieutenant-Governor Gore informing Sir James Craig:

"I think I may venture to state that the generality of the inhabitants, from Kingston to the borders of the Lower Provinces, may be depended upon, but I cannot venture from the industry that has been used by certain characters now and lately in this province, to assert that the inhabitants about the seat of this Government, Niagara and Long Point, are equally to be relied on. I have also to observe that, excepting the inhabitants of Glengarry and those persons who have served in the American War and their descendants, which form a considerable body of men, the residue of the inhabitants of this colony consist chiefly of persons who have emigrated from the States of America, and of consequence retain those ideas of equality and insubordination much to the prejudice of this government, so prevalent in that country."

John Melish, as the result of his observations in 1810, states his conviction "that if 5,000 men were sent into Upper Canada with a proclamation of independence, the great mass of the people would join the American Government." This opinion prevailed widely among his countrymen at the beginning of the century.

In March, 1806, Jacob Crowninshield, of Massachusetts, formerly Secretary of the Navy, declared in Congress that "the States of Vermont and Massachusetts will ask no other assistance than their own militia to take Canada and Nova Scotia." President Jefferson assured Turreau, the French ambassador, in July, 1808, that "if the English do not give the satisfaction we demand we will take Canada, which wants to enter the Union, and when together with Canada, we shall have the Floridas, we shall no longer have any difficulties with our neighbors, and it is the only way of preventing them."

On 22nd February, 1810, Henry Clay told the United States Senate: "The conquest of Canada is in your power. I trust I shall not be deemed presumptuous when I state that I verily believe that the militia of Kentucky are alone competent to place Montreal and Upper Canada at your feet."

In the debate on the report of the Committee on Foreign Relations in December, 1811, the leaders of the war party in Congress

fairly vied with each other in boasts of the ease with which the conquest of Canada might be effected.

Mr. Grundy said: "We shall drive the British from our continent. I am willing to receive the Canadians as adopted brethren." General Widgery made the amazing declaration, "I will engage to take Canada by contract. I will raise a company and take it in six weeks." John Randolph, who was in opposition, observed on the last day of the discussion, that ever since the report of the committee had come into the House, "we have heard but one word—like the whip-poor-will, one monotonous cry—Canada! Canada! Canada!"

Recent events in the Floridas did not fail to be construed as highly significant and encouraging by the advocates of the annexation of Canada. In 1810 a body of real or pretended American settlers in West Florida organized an insurrection and marched upon Baton Rouge, the capital. They killed the Spanish governor and took the town, which was promptly occupied by a body of regular soldiers of the United States, under pretence of restoring order. On the 3rd August, 1811, General Matthews wrote from St. Mary's, in Georgia, to the Secretary of War: "I ascertained that the quiet possession of East Florida could not be obtained by an amicable negotiation with the powers that exist there; . . . but that the inhabitants are ripe for revolt. They are, however, incompetent to effect a thorough revolution without external aid. If two hundred stand of arms and fifty horsemen's swords were in their possession, I am confident they would commence the business, and with a fair prospect of success. These could be put into their hands by consigning them to the commanding officer at this post, subject to my order. I shall use the most discreet management to prevent the United States from being committed, and though I cannot vouch for the event, I think there would be little danger." What answer was returned may be conjectured from subsequent events. On 16th March, 1812, two hundred self-styled insurgents crossed the river and summoned the town of Fernandina to surrender, while an American gunboat took up a position to cover their movements. The governor of the place inquired whether the commander of the gunboat intended to assist the insurgents, and upon being assured that he did, at once capitulated. Three days later Matthews took possession of Fernandina with a company of United States regulars to restore order.

They made no secret of their expectations that Canada might be

overrun in a similar manner. Replying to a speech from Randolph on 6th May, 1812, Calhoun exclaimed: "So far from being unprepared, Sir, I believe that in four weeks from the time that a declaration of war is heard on our frontiers, the whole of Upper and part of Lower Canada will be in our possession." Dr. Eustis, the Secretary of War, publicly asserted that "we can take Canada without soldiers; we have only to send officers into the Province, and the people disaffected to their own government will rally round our standard." Jefferson assured a correspondent in August, 1812, that "the acquisition of Canada this year, as far as the neighborhood of Quebec, will be a mere matter of marching, and will give us experience for the attack of Halifax, the next, and the final expulsion of England from the American continent."

These boastful forecasts were aptly satirized with but little exaggeration in a pamphlet of the day, entitled "The Wars of the Gulls."

"These are the true limits of my dominions. Yes; I mean to have Canada or Felix Grundy is no prophet, and William Widgery an unprincipled deceiver. 'Take Canada, say they, before the ice breaks up, and as for the rest, it may be taken any time, for the ice never breaks up. Plant but a standard in Canada and the subjects of oppression will rush by thousands to receive the oath of allegiance, and to become incorporated with the great nation of the Gulls. A few weeks more and my myrmidons shall be scouring the wilderness, and beating the bushes from Kingston to Lake Winnipeg. No need of more recruits, for the renegadoes of free trade, the scapegoats of British oppression shall come over in swarms to join the invincible standard, and add new gulls to the conquering legions. . . . The whole Cabinet was resolved into a Proclaiming Committee, and after a session of six weeks, with no other assistance than a file of the *Moniteur*, that stupendous proclamation was engendered, which was to carry jeopardy and dismay from Fort Churchill to Halifax. It was for some time debated whether the proclamation should be sent alone or attended by an escort; but at length it was determined that just for form's sake a regiment or two, under the command of a valiant general, well known on the borders of Canada, should attend the mammoth production into that country, and in case of an unforeseen difficulty they should call for advice and direction upon the trusty *ci-devant* cabinetteer. Barnabas Bidwell, and other confidential friends of the Great Mogul resident in that country. Everyone now admired the deep policy



of the Great Mogul, who, long previous to the invasion of Canada, had suffered his trusty associates, Bidwell, Garnett, and others, to make a generous sacrifice of their reputation at the time, that they might qualify themselves to reside with a better grace in the country of their enemies,<sup>4</sup> and make gradual preparation for the reception of the victorious proclamation, by teaching the illiterate natives how to read it when it should arrive."

The events of the war demonstrated beyond doubt that while the Loyalists and their descendants, with a few exceptions, still remained resolutely loyal, the Quakers and kindred religious bodies, probably numbering six or eight thousand persons, were generally apathetic and neutral, and the great mass of the recent immigrants, comprising possibly one-third of the population, were strongly disaffected, and in many instances, when occasion offered, actively hostile.

While the successful defence of the Province could scarcely have been practicable without the support of the loyal inhabitants, the disaffected portion was a constant source of apprehension and danger.

Shortly before the war began the Governor-General estimated the number of the militiamen nominally available for defensive purposes at 11,000, of whom he explicitly stated that it would not be prudent to arm more than 4,000. General Brock remarked that "although perfectly aware of the number of improper characters who have obtained extensive possessions, and whose principles diffuse a spirit of insubordination very adverse to all military institutions, yet I feel confident the large majority will prove faithful." On February 24th, 1812, a proclamation was published announcing that "divers persons had recently come into the Province with a seditious intent and to endeavor to alienate the minds of His Majesty's subjects," and directing the commissioners appointed to enforce the act lately passed by the Legislature for better security of the Province, to be vigilant in the discharge of their duties. On the following day Brock records his bitter disappointment at the defeat of a material amendment to the Militia Act in the Legislature.

"The many doubtful characters in the militia made me very anxious to introduce the oath of alienation into the bill. There were twenty members present when this highly important measure was lost by the casting voice of the chairman. The great influence



which the fear and number of the settlers from the United States possess over the decisions of the Lower House, is truly alarming and ought by every practical means to be diminished."

Again in a letter to Lord Liverpool, of March 23rd, he remarked on this subject :

"My observations convinced me of the expediency of every militiaman taking an oath abjuring every foreign power. The many settlers from the United States who openly profess a determination of not acting against their countrymen made some test highly necessary. The number of aliens emigrating from the United States who have acquired property and consequently votes for the Assembly, alarmed at the novelty of an oath of abjuration, exerted their utmost efforts and ultimately succeeded (so extensive is the influence of this people that it even masters the Legislature) in preventing by the casting vote of the chairman of the committee, the adoption of this. A bill for the suspension of the Habeas Corpus was also defeated by their influence. Liable to the constant inroads of the most abandoned characters who seek impunity in this province from crimes of high enormity committed in the States, and surrounded by a population a great part of which profess strong American feelings and attachments, it will not, I hope, be deemed unreasonable at a time like the present, if I should be desirous to be clothed, in conjunction with His Majesty's Executive Council, with the means so well calculated to maintain the public tranquillity."

Smith, in the "Geographical View," asserts that had the Habeas Corpus been suspended at this time, there would certainly have been an insurrection.

On July 12th, Brock wrote from Fort George that "there can be no doubt that a large portion of the population in this neighborhood are sincere in their professions to defend the country, but it is likewise evident to me that the greater part are either indifferent to what is passing or so completely American as to rejoice in the prospect of a change of government."

Almost as soon as General Hull entered Canada at Sandwich he was joined by a party of American settlers from the Western and London districts, headed by Simon Watson, a surveyor, who raided the country on horseback as far as the township of Westminster without opposition. "Nothing can show more strongly the state of apathy in that part of the country," was Brock's bitter comment

on this incident. "I am perhaps too liberal in attributing the conduct of the inhabitants to that cause." A few days later he added: "The population, although I had no great confidence in the majority, is worse than I expected to find it, and the magistrates, etc., etc., appear quite confounded and decline acting—the consequence is, the most improper conduct is tolerated. The officers of militia exert no authority. Everything shows as if a certainty existed of a change taking place soon."

Again, on the 29th July he remarked: "The population, believe me, is essentially bad—a full belief possesses them all that this province must inevitably succumb—this prepossession is fatal to every exertion. Legislators, magistrates, militia officers, all have imbibed the idea, and are so sluggish and indifferent in their respective offices that the artful and active scoundrel is allowed to parade the country without interruption and commit all imaginable mischief. They are so alarmed of offending that they rather encourage than repress disorders and other improper acts. I really believe it is with some cause that they dread the vengeance of the Democratic party, they are such a set of unrelenting villains."

However, the capture of Detroit and the victory at Queenston had a stunning effect upon the disaffected. Numbers fled from the Province at the first opportunity, others were deported for refusing to take the oath of allegiance, and the remainder were intimidated for the time being.

By the end of the year, however, some of them seem to have regained courage, for Smith relates that he saw a party of about fifty in the Newcastle District marching along the main road with fife and drum beating for recruits, and cheering for President Madison.

When York was taken, in April, 1813, several political prisoners were liberated from the jail, and an American officer who was present, relates that their "friends and adherents in Upper Canada suffered greatly in apprehension or active misery." After Niagara had been occupied by his troops, General Dearborn reported that "the inhabitants came in in numbers and gave their paroles. I have promised them protection. A large proportion are friendly to the United States, and fixed in their hatred of Great Britain." Another American officer states that "our friends hereabouts are greatly relieved by our presence. They have been terribly persecuted by the Scotch myrmidons of England. Their present joy is

equal to their past misery." The invaders were soon joined by two members of the Assembly, Willcocks and Mallory, who were then commissioned to enlist a body of troops from among the disaffected inhabitants designated as the Canadian Volunteers.

In May, 1813, Colonel Talbot informed General Vincent that "there is a party in the County of Oxford that, with a very few exceptions, are, I am sorry to say, composed of a more violent and systematic band than those that compose the American army," and about a month later, Justice William Dummer Powell, writing from York, warned the Governor-General that "in the event of any serious disaster to His Majesty's arms, little reliance is to be had in the power of the well-disposed to repress and keep down the turbulence of the disaffected who are very numerous."

The repeated reverses of the American army and the re-occupation of the Niagara frontier by the British forces, caused the flight of so many of the inhabitants that General De Rottenburg issued a general order stating that "many farms in the District of Niagara are abandoned by their proprietors or tenants who have joined the enemy," and appointing commissioners to "husband the same and gather in the grain."

Almost a year later, the Adjutant-General, Colonel Baynes, makes the following remarkable statement in a letter addressed to the Governor-General :

"In the Upper Province the population is very scanty, and, with the exception of the Eastern District, are chiefly of American extraction. These settlers have been suffered to introduce themselves in such numbers that in most parts (with the exception above alluded to) they form the majority, and in many, almost the sole population. A military force composed of such materials could be but little depended upon, and this has been very generally exemplified in some of the most populous parts of the settlements where two-thirds of the inhabitants have absconded, abandoning valuable farms, and in repeated instances have seduced and assisted the soldiers to accompany them. Even members of the Legislature have deserted to the enemy, and his chief source of information is drawn from the disaffected settlers that remain. This impolitic system had been suffered to grow to such an extent that, had it not been checked by the war, a few years would have rendered Upper Canada a complete American colony; indeed, that had been so nearly accomplished on the important line of communication

between Kingston and Cornwall, that, had it not been for the counterpoise afforded by the loyal Scots settlers of that place, Stormont and Glengarry, it would have been impracticable to have preserved the communication with the Upper Province, and this intercourse once interrupted, it would have been impossible for the Upper Province to have long sustained itself, as it is well ascertained that the several predatory incursions of the enemy between Kingston and Brockville were perpetrated with the connivance and aid of settlers in that neighborhood."

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## COMMERCIAL SECTION.

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*THE COMMERCIAL DIPLOMA.*

D. YOUNG, GUELPH.

I am glad to have the privilege of congratulating the Commercial Section of the Association on the steadily increasing popularity of commercial instruction, on the higher place now given to this work in our High and Public Schools, and also on the apparent willingness of the public to support and further all plans for carrying out more thoroughly and completely all the branches of a business education; and I am sure that no small portion of this favorable hold on popular opinion is due to the good work and the moulding influence of members of this section of the Association.

During the past ten years much more prominence has been given to the teaching of commercial subjects in our High and Public Schools than in any previous time in the history of the Province, and much more care has been manifested by the Education Department in framing regulations for the selection of properly qualified commercial masters.

However, to say that we have made some advancement in teaching commercial subjects over the methods employed twenty years ago in the old Grammar Schools, and that the course is now considered extended, and to say that now in our Public Schools, book-keeping and a limited number of commercial transactions are taught, and in some special classes even phonography and type-writing, is not an altogether satisfying statement or comparison when we recall the rather humiliating fact that in the old Grammar Schools, although the higher mathematics flourished and Latin went to seed, book-keeping and commercial transactions and ordinary business methods were almost, if not utterly unknown, while in the Public Schools, if such subjects were taught at all, they were taught by masters quite incapable and almost as ignorant of those branches and inexperienced in business methods as the pupils themselves.



And now, before entering on the discussion of the subject in hand, let us examine the causes which have gradually, but we hope none the less effectively, brought about the increased attention now given to commercial subjects, and the decline of classics and kindred subjects in the schools of Ontario. The original Grammar School had for its main work and object the fitting of pupils for a college or university, the Normal School, until 1875, supplying both the academical and pedagogical training of those about to embark in the speculative and hazardous enterprise of earning a livelihood and possibly a pension by teaching a Public School.

After 1875, however, the academical training of students in the Normal School was handed over to the High Schools, and the grafting on of this new branch of work almost revolutionized our Grammar or High Schools into academies for the preparation of students for the non-professional course in qualifying for Public School teachers' certificates, but did not further extend their usefulness to equipping more fully other students for the ordinary business of life, nor were commercial subjects engrafted upon this course until the demand for those who possessed a business education was such that in nearly every city and large town in the Province, business colleges were opened by private enterprise, and although the fees ranged from \$20 to \$50 per term of three months, these were largely attended and highly appreciated, supplying at that time a very apparent lack in the school system of the Province.

In those days business colleges were paying institutions, and in one sense they are still, but the taxpayer and supporter of the High and Public Schools here began to reason, why should he pay the heavy fees of the business college for one son who was going into business, while the Province provided free the proper education of another son who was going into teaching—the university—or the ministry, medicine or law; and without much trouble the reasoner came to the only reasonable conclusion, that such schools or such education should also be free, and this demand became popular in every locality.

It is only within the last five or ten years that the eyes of the leading educators of the people of Ontario have been opened to the fact that, in order to make our Public and High Schools what they should be to the poor as well as to the rich, to those seeking to enter commercial life, or any business or trade, as well as those entering on teaching or a profession, the school must give not only

the necessary elementary and fundamental training, but all training that can be given except that which can only be secured by experience or practice in the work to which they aspire.

Let us now consider very briefly the commercial or business education that can at present be secured at our High Schools, of which the Commercial Diploma is an index. I have tried to show that until recently our High Schools were not prepared to do this work, that the furnishing of such a course was not at all the purpose for which they had been originally intended, and that expediency and a popular demand for such an education had resulted in this work being placed upon the High School curriculum at a time when the curriculum had been moulded to suit the necessary course for candidates for a non-professional certificate and for all other parties wishing to take the same course either to the end of the line or to a certain station. The difficulties in the way of at once adopting such a course—side by side with the teacher's course—led to their being somewhat amalgamated, to the disadvantage of commercial masters and pupils, and of the commercial course, and to such an extent that it can still be seen in the examination requirements of the department for commercial diploma in Part I., although less conspicuous in the amended regulations. In the last curriculum of 1899-1900, which now supersedes the curriculum of 1896, candidates are not required to pass an examination in Algebra and English Literature.

#### COMMERCIAL DIPLOMA.

The course in 1900 for a commercial diploma will, as heretofore, consist of two parts (I. and II.). Part I. will be the same as Part I. of Junior Leaving. Part II. will embrace the commercial subjects mentioned in Regulation 50, viz. : Book-keeping and writing, commercial transactions, business forms and usages, stenography (theory), stenography (dictation). Book-keeping shall be taken up in six sets, as follows :

#### THE EXAMINATION REQUIREMENTS.

The examination requirements for Part I. Commercial Diploma, or Part I. Junior Leaving Standing, are :

#### GEOGRAPHY.

The building up of the earth ; its land surface ; the ocean ; comparison of continents, as to physical features, natural products and inhabitants ; relations of physical conditions to animal and vege-

table products, and of natural products and geographical conditions to the occupations of the people and national progress; form, size and motions of the earth; lines drawn on the map, with reasons for their position; relation of the positions of the earth with respect to the sun, light and temperature; the air; its movements; causes affecting climate. Natural and manufactured products of the countries of the world, with their exports and imports; trans-continental commercial highways and their relations to centres of population; internal commercial highways of Canada, and the chief internal commercial highways of the United States; commercial relations of Great Britain and her colonies. Forms of governments in the countries of the world, and their relation to civilization. One examination paper.

#### ARITHMETIC AND MENSURATION.

Proofs of elementary rules in arithmetic; fractions (theory and proofs); commercial arithmetic; mental arithmetic; mensuration of rectilinear figures. One examination paper. (The questions will call for accuracy, and will have special reference to the requirements of ordinary life.)

#### ENGLISH GRAMMAR.

Etymology and syntax, including the inflection, classification and elementary analysis of words, and the logical structure of the sentence and paragraph; exercises chiefly on passages from authors not prescribed. One examination paper. (The questions will call for such an elementary knowledge of the subject as will be of special value in the ordinary use of the language).

#### ENGLISH COMPOSITION.

For examination purposes an essay of about two pages of foolscap on one of the themes prescribed by the examiners will be required. The penmanship, spelling, punctuation, construction of sentences, the logical arrangement of the thought, the literary accuracy and aptness of the language, and the general plan or scope of the whole essay will be specially considered by the examiners. One examination paper.

#### HISTORY OF GREAT BRITAIN AND CANADA.

Great Britain and Canada from 1763 to 1885, with the outlines of the preceding periods of British history. The geography relating to the history prescribed. One examination paper.

You will notice that algebra has been struck off, and that the subject of English grammar has been substituted for English literature, and that the tendency is to give a commercial tinge to the geography and arithmetic, and these are steps in the right direction which only require further encouragement; but the subject of history—which, if taken up in the form of civics, would prove of great practical benefit, is not so amenable to this process—is still in the old course. It does not seem to have struck the framers of the course for Part I. with any force that the vocabulary of the business man, and the style of his composition, differ, and must necessarily differ, from those of the writer who prides himself upon being apt in description and soul-stirring in narrative.

Some of you may have read with pleasure the life of Audubon. His father-in-law was a most successful business man. Audubon was expected to be his right-hand man, but the naturalist's amusing and helpless statements and his odd business letters were the despair of the old gentleman, who, at the same time, admired his son-in-law's magnificent description of the glorious woods, the delightful birds, and the babbling streams he so enjoyed on his business expeditions to the towns near by.

In addition to the style of composition required in the Part I. Junior Leaving Course, I would not say to its exclusion entirely; the students should have some drill on the writing of letters of a social nature, and considerable drill on those of a business nature, such as the ordering of goods, enclosing of invoices and account sales, dunning letters, making inquiry regarding goods and chances of doing business, letters in reply, advertisements, applications for positions, etc., but as this is to be dealt with more fully in another paper I shall now ask you to consider if there are not other essential subjects on which a rigid examination should be passed, subjects sufficiently essential in this kind of work to demand separate papers. I refer to writing and spelling, rapid and accurate business calculations, and the use and meaning of business phrases and business terms, with at least an intelligent comprehension of the use and exchange of money, the business of banks and the subject of banking generally, as far as it is likely to affect their knowledge of the other subjects taken up, and also a fair knowledge of the Laws of Business, as in all probability good students will derive much assistance from these studies in after life and be led to read up the subjects more fully for themselves, if once their interest has been aroused.

But to revert to the subject of writing. I think before a pupil is awarded a diploma he should be able to write a good business hand, plain but rapid, and also be able to do engrossing well in *Old English*, or in *characters* suitable for superscription, and be allowed to show that he can do ornamental work as well with the pen on an optional paper.

In orthography I think that the present test is not sufficiently severe, and unless its importance is emphasized by a paper on selections of difficult words used in ordinary business, with a paragraph or groups of sentences containing words and phrases of a commercial signification frequently misspelled, this subject is likely to be overlooked. A good business man lately told me that he had just told a business college graduate that he did not require a stenographer who could take short-hand notes at 100 words per minute, but that he must have one that could write well and spell correctly.

I think, too, that there should be an optional paper on type-writing, and perhaps one on drawing, and that all such optional papers taken should be considered as increasing the value of the diploma.

I have nothing to say in the way of criticising the papers which have been set on Part II. of the Examination, *i.e.*, the book-keeping and business forms, and the stenography, both theoretical and practical. They have, I think, in the main been very fair papers. The book-keeping and business forms are quite difficult enough for the purpose, while the stenography we have found rather easy, particularly the theoretical paper, which I think should be based on both "The Manual" and "The Reporter." The speed in the practical examination might also be increased to sixty words, and the transcription to fifteen words per minute.

Our text-books on the different subjects are good—at least good of their kind—the best we have had in our schools, and I do not intend by what I may say here to criticise them generally, but there are methods and problems in our High School Arithmetic which first-class business men would not use; for example, we cannot buy a fraction of a share of stock; and in Equation of Payments, I am told, the method adopted in the High School Arithmetic is never actually employed. Our High School book-keeping is not quite orthodox on negotiable paper, nor as explicit on many points as "The Canadian Accountant" or "The Manual for Accountants."

Our present spelling book could easily be supplemented with



long lists of words and phrases often misspelled in writing business letters, bills and legal forms, etc., but without going further into details the point I wish to make is this, that all such books to be of the greatest use to commercial students should be prepared under the supervision of adepts who know most thoroughly business methods in practice and business laws affecting the subject, that no erroneous ideas may be inculcated, and that the text-book and teaching may have due weight.

In the second place, then, we have endeavored to show that the commercial or business education obtainable at present at our High Schools, as measured by the diploma given upon completing it, although affording a good groundwork for a superstructure, takes too much time, for the foundation does not sufficiently test the student in the essentials nor by any means complete the course or render the diploma sufficiently valuable. Yet we feel gratified even in the nature of the error, as that may be much more easily remedied than the case of many students of institutions of higher pretensions where the lack of academical training or even of a good elementary education is considered no barrier to the undertaking of the commercial subjects proper.

We have stated that the diploma should be made more valuable, that we should not be content with merely an elementary commercial course, but that all that can (without experience and practice) be given, should be thoroughly given, and made as complete as possible, so that the pupil may, without loss of time, enter on his practical course; that the training course should be extended and made as appropriate as possible to his future work; that higher and more responsible positions may be open to him, and lie within his reach; and that a higher standard should be exacted in writing, spelling, rapid and accurate calculations, and business methods, with optional subjects, for which the candidate should receive credit, and that the text-books used should be prepared under the supervision of practical business men, experts in the departments on which these text-books treat.

And now, in the third place, as to the details and advantages of extending this course and making it more comprehensive, and the diploma more valuable. The unifying of the school system of Ontario from the kindergarten to the university, and set examinations therewith, has in time given a standard value to certain examinations. I may here mention one or two cases of this. The examination of Form I. entitles the successful candidate to enter in

pharmacy, or law, but does the candidate the injustice of exacting a knowledge of elementary algebra, almost a useless acquisition in his future course, and the Junior Leaving modified admits to the University and to law, and both Junior and Senior Leaving, like the Entrance examination, has some standard value recognized by all.

Now, in the present state of affairs in my own classes, the pupils always inquire when I call for the names of those about to try the examination for commercial diploma, what advantage will such a diploma be to us? And although I have always made the best plea I could for it, I have never been able during the past three years to induce more than twelve of the class to attempt the examination, or rather to persuade them to lay out \$2.00 for the certificate, while at least double the number might have taken the certificate with ease.

Last year only five pupils would consent to write for the diploma, and they were the candidates who stood lowest on the list in class work. These failed in securing the diploma which the Board of Education offers, and two also failed on the commercial diploma.

This year, although we have a class of thirty-three pupils who should all be able to pass the examination, I do not hope for any candidates and for no other reason but "that" the commercial diploma is not commercially valuable to the extent of \$2.00.

And now, to be more definite than in the preceding paragraphs, I think the examination for commercial certificates should be based on the subjects of which a thorough knowledge is considered essential by all expert business men for those entering upon work in retail and wholesale houses, and in banks, or for the course of chartered accountant up to the point where the practice work must begin, and also for the qualifying course of the Civil Service examination proper and clerkships in the Provincial Assembly.

The examinations should be made sufficiently severe to satisfy the representatives of each class or institution of which I have spoken. Banks, large wholesale firms, the Institute of Chartered Accountants and the Board of Civil Service Examiners already exact certain examinations and admit without examination those candidates who have a certain standing, such as a degree, and in working out the details of this scheme we cannot do better than be guided by their several examination requirements and collect those that are common to all as the essential subjects, making from the others a list of options where they do not bear directly on the essential subjects.

Now, in the Civil Service examinations the following standards are required :

### CIVIL SERVICE EXAMINATION.

#### CURRICULUM.

##### *Lower Grade (Preliminary).*

Penmanship, Orthography, First Four Rules Arithmetic, Reading Print and Manuscript.

The reading is only intended to make it evident that the candidate does not stutter, and is neither shortsighted nor deaf.

##### *Higher Grade (Qualifying).*

Penmanship, Orthography, Arithmetic, Geography, History (usually outlines of British, French, Canadian and United States, at discretion of Board), Grammar, Composition, Transcription.

#### OPTIONS.

Book-keeping (double entry), Shorthand, Typewriting.

The Preliminary examination qualifies only for lower grade offices. The lower grade offices are messengers, letter carriers, tide waiters, assistant inspectors of weights and measures, etc.

The Qualifying renders successful candidates eligible to appointment to second-class clerkships in the inside departmental division at Ottawa, and for services as temporary copyists; third-class clerkships and the offices of landing waiters and lockers, in the outside division for customs service: third-class clerkships and the office of exciseman, in the second division for Inland Revenue service; third-class clerkships, railway and marine mail clerkships, and the offices in the second division for Post-office service.

(The second departmental division comprises those employed otherwise than on the departmental staffs at Ottawa.)

While the Council do not publish a complete list of books, as compulsory reading for candidates, the following selection will be found most useful for study and reference :

#### INTERMEDIATE EXAMINATION.

Promissory Notes, Drafts and Cheques	-	Johnston
Canadian Accountant	- -	Robinson & Johnson
Book-keeping	- - - - -	Goodwin
Book-keeping for Accountant Students	-	Dicksee
Auditing	- - - - -	Dicksee
Shareholders' Manual	- - - -	Warde

Partnership Accounts	-	-	-	-	Percy Childs
Adjustment of Partners' Accounts, with Ex-					
amples (in course of application)	-				Wilton C. Eddis
Assignments Act of Ontario	-	-	-		Cassels
The Business Educators' Commercial Law					T. H. Luscombe
Manual for Accountants	-	-	-		Wilton C. Eddis
Laws of Business	-	-	-	-	Parsons
High School Arithmetic	-	-	-	-	

The Primary examinations for Chartered Accountant shall be conducted in the following subjects or such variations or modifications thereof as the Council may from time to time deem expedient :

- (1) Business Composition and Correspondence.
- (2) Spelling and Punctuation.
- (3) Arithmetic.
- (4) Penmanship.
- (5) Elementary Book-keeping.
- (6) Common Latin Terms and Roots.
- (7) British and Canadian History.
- (8) Geography.
- (9) Stenography (optional).

The Council may, from time to time, by resolution, designate examinations conducted by reputable educational institutions within the Province of Ontario or elsewhere, which shall be deemed equivalent to the Primary examination; and all applicants for registration who shall have passed any examination so designated, shall be exempted from the Primary examination. The Council may in like manner provide that under certain conditions, a term of practical experience at accounts shall be deemed equivalent to the Primary examination; and all applicants who shall have fulfilled such conditions may be exempted from the Primary examinations in the discretion of the Council.

The Council may delegate the conduct of the Primary examination to any educational institution within the Province of Ontario, which has become affiliated with the Institute, and whose prescribed course of study and examination shall meet the requirements of the Council; provided that no candidate shall be examined in such Primary examination by an affiliated institution unless such candidate shall have applied to the Council for registration as a

student-at-accounts, and shall have been approved for such examination.

The Council have decided that the subjects for the examinations to be held in May, 1900, shall be as follows :

#### INTERMEDIATE EXAMINATION FOR CHARTERED ACCOUNTANT.

1. Book-keeping and Accounts. This will include Partnership and Corporate Accounts, Balance Sheets and Statement of Affairs, etc.

2. Auditing.

3. General Commercial Knowledge, including Mercantile Arithmetic, Negotiable Instruments and a knowledge of general Business Forms and Usage.

4. Statutory Requirements, relating to Companies, Partnerships, Insolvency and Winding-up Acts. This subject covers both the Dominion and the Ontario Acts.

#### FINAL EXAMINATIONS.

1. Advanced Book-keeping and Accounts, covering Joint Stock Companies, Partnerships, Executorships, Mercantile and Financial Accounts, together with Statement of Affairs and Deficiency Accounts.

2. Auditing. Under this heading the candidate should be prepared to answer any question pertaining to the general business of an Accountant.

3. Business Law. Including Statutes relating to Banks, Companies, Partnerships, Executors and Administrators, and Bankruptcy.

By order of the Council.

WILTON C. EDDIS, *Secretary*.

And now, while I am urging that the commercial course should be more complete in High Schools and Collegiate Institutes, I think that such a course already adopted (though scarcely recognized by the Education Department) in many of the larger Public Schools of our cities should be just as complete and as fully recognized in all the Public Schools of all the larger towns and cities of the Province. The Public School Leaving Course is not absolutely necessary in our city Public Schools when High Schools are already



doing that work free ; but almost such a course as that I have outlined has already, without any encouragement, except from the public, and the success of the graduates of the course, been adopted and provided for in several of the cities of the Province, the first year after passing the Entrance examinations devoted to the mainly essential and English subjects, and the rudiments of the advanced commercial subjects, as Phonography and Type-writing, Book-keeping, Business Forms and Letters, Commercial Law, Commercial Geography, Banking and Exchange, Business Arithmetic ; the second, to completing the purely commercial and optional subjects as far as practicable. In Hamilton, and in four or five other cities, such classes are conducted in connection with the Public Schools, and the following advantages are claimed from such a course in connection with our Public Schools : The influence of the commercial master on the pupils is less likely to be disturbed or distracted by other masters, anxious to do full justice to their particular subjects, often at the expense of the writing and neatness of the pupils. Other subjects are not so likely to be foisted upon the commercial teacher. His influence as a specialist, handling only his own department, is greater, and his chances of knowing the character and capacity of each pupil on his passing the Entrance Examination are much better, since this knowledge is more easily procured in the Public Schools during his previous course. In London, though connected with the Collegiate Institute, the commercial classes occupy a separate building, and are *there* under commercial specialists only. While this is not the main issue or point involved in this paper, the teachers of commercial subjects should see to it, for their own sakes, that while they are ranked as specialists in their department, they and their pupils be not loaded up with subjects not in any sense commercial ; and that we be not content with the tendency to recognize merely a few branches of the commercial subjects with other subjects commercialized. On the other hand, let us unitedly endeavor to secure an extended and clearly-defined course, practical in every respect, and leading up to the highest and best business and commercial positions available in the land ; and let us, too, both from self-interest and the interest we should take in our pupils, aim at making the commercial course in our High or Public Schools one which will tell in the after-life of the students, as being distinctly the means, through our guidance, by which they attain their success. And if in a year, or two years from this time, we can secure such a revision of the curriculum for

commercial diploma as to include all that will be required to satisfy the leading business men of the Province, and such Institutes and Boards of Examiners as I have mentioned above (with several options), we can reasonably hope that in a very short time the commercial diploma will be accepted as a full equivalent, and in place of such examinations, and be recognized as a diploma of standard value much more to be coveted than the present diploma, or any Business College diploma. Let the course be made more complete, even if it require longer time and demand from both teacher and pupil greater diligence and ability, so long as we know that the prize for which we are striving will be worth the winning.

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*ENGLISH COMPOSITION AS A SUBJECT IN A  
COMMERCIAL CURRICULUM.*

JOHN W. CHARLESWORTH, GUELPH.

One of the favorable signs upon the horizon of educational affairs in this province, in fact, a sign that is now well above the horizon, is the increasing attention that is being given to those studies that are of most direct value to the pupils who will afterward enter commercial life. I say it is a favorable sign, because the subjects commonly included in what may be called a commercial curriculum, furnish, when they are properly taught, the training that is best suited to the great majority of the pupils in the Public Schools, and best suited to a very large number of the pupils of the High Schools. From all parts of the country is heard the cry that the professions of law and medicine are overcrowded; most of us probably think that the teaching profession is fairly well filled; and though, to use a trite saying, there is plenty of room at the top, yet it is to be feared that large numbers of those who enter the professions year after year are not destined ever to reach the top. It is well, then, that so much has been done to remove whatever foundation may, in the past, have existed for the statement that the curriculum of the High Schools was such as to tempt pupils away from the farm, the workshop, and commercial life, into the professions; or for the belief that unless a boy wished to become a teacher, a doctor, a lawyer, or a minister, his time might be better employed than in attending a High School. It is certainly true that pupils are now able to pass the Entrance examination at an early age, and it would be well if most of those who pass that examination could remain a few years longer at school. But to induce them to do so, it is necessary that they shall be permitted to pursue those studies which will round off their course of study in the Public School. Of course, provision must be made for those who will, in any case, wish to enter upon the study of a profession—for those who have the natural aptitude for professional life. But when we recollect that most of the children who pass the Entrance examination will not think of entering a profession, we must admit that it is well some provision is made for them to obtain a training in those unostentatious but very useful and

practical subjects comprised in the course of study leading to a commercial diploma. For we must remember that a boy or girl prefers to leave school with some tangible evidence of having successfully followed a definite course of study. It is for the educational authorities to make the course of study, and the examination for the diploma, such as to give value to the certificate.

It is not my task to-day to discuss the whole commercial course in detail. Mine is the humbler duty of directing your attention for a few minutes to one of the subjects in that curriculum; to its relation to the whole course; and to what ought to be the end in view in laying down a course of study, in teaching it, and in examining in that subject candidates for the commercial diploma. But I can hardly do this without glancing for a moment at the aims and objects of the commercial course as a whole. And first, the object of that course is not, I think, to make expert book-keepers, any more than it is the object of the course of manual training followed in some schools to make expert blacksmiths or carpenters. The boy who has received a course of manual training will probably find it easier to become an expert carpenter than one who has not; and, similarly, the boy who has been thoroughly taught the subjects of a good commercial course will have to that extent an advantage in his endeavor to become an expert book-keeper. But it is not necessary either for the first boy to become a carpenter, or for the second to become a book-keeper to be benefited by his training. It is well for any man to have the use of his hands; and it is a good thing for any man to have some knowledge of the art of keeping accounts, and some acquaintance with the laws of business. The object of instruction in the subjects of the commercial course is, or ought to be, the development of certain aptitudes and habits by exercising the pupils upon subjects, the study of which will furnish them with knowledge useful in any occupation in which they may afterwards engage. Now, the most important of these habits is, in my opinion, that of being thorough and accurate in whatever work is undertaken. From time to time we hear from business men protests concerning the lack of accuracy in the work of pupils who go out from our schools. It is complained that they do not work arithmetic accurately, and that they spell incorrectly. I need not here go into the question whether these criticisms are always just; but the fact that they are made shows us what qualities men of business expect to find developed in our pupils.

I wish to consider very briefly the subject of English Composition as furnishing material and opportunity for the development of these habits of thoroughness and accuracy. I am sure that no one here will be inclined to underestimate the importance of the subject. Whatever difference of opinion there may be as to the best means of reaching the end, there can surely be no question that the end itself—the ability to express one's thoughts in a correct and suitable form of words—is a very desirable one.

Before considering the nature of the proper course of study in composition, and the proper kind of examination to test whether the course of study has been followed, it is necessary to define the object to be kept in view in teaching the subject to pupils such as have been referred to. We must remember, then, that the majority of these pupils will make little other use of their training in composition than to write friendly or business letters. The object of their study of composition, then, like the object of their study of other subjects of the commercial course should be to establish more firmly that which they have acquired to some extent in their preparation for the Entrance Examination. When they have completed their commercial course, their knowledge should be sound and thorough as far as it goes, and they should have the ability to express clearly whatever thoughts they may really have to express; they should moreover be able to spell correctly, and to punctuate intelligently every sentence they compose.

It may be said that this should have been attained by the time the pupil passes the Entrance Examination. But is it the general experience of members of this section that this is the case? It is very true that in every class of entrants there are to be found a number who have considerable facility of expression, and who do spell and punctuate well. But I think the experience of anyone here will tell him that there are far too many who are able to pass the High School Entrance Examination—yes, and too many who have been able to pass the Public School Leaving Examination—without being possessed of the humble but desirable accomplishments I have mentioned. In making this statement I am not relying solely upon what I may have been able to learn by observation of one or two schools, but I base the assertion upon what I have been able to learn in various ways of a good many schools. Nor am I to be understood as implying that the Public School teachers are to blame for this. The evil is largely due to the



multiplicity of subjects that must be taught to candidates for the Entrance Examination. I am quite of the opinion that Mr. Burt, the Principal of the Brantford Collegiate Institute, expressed in a letter in one of the Toronto papers a considerable time ago, that an Entrance Examination upon a smaller number of the most essential subjects would be to the advantage of both teachers and pupils; that is, if within the limits prescribed, a reasonably high standard were exacted. For we must not forget that we may either prescribe a large amount of work for an examination and exact a low standard of attainment, or we may prescribe a smaller amount of work and exact a higher standard, in the form of a percentage of marks necessary for a pass. The latter is in my opinion much the better plan, especially if we wish to impress pupils with the necessity of being thorough and accurate. I am unable to see why the same percentage of marks should be exacted in all subjects. Why should not a greater proportion of marks than  $33\frac{1}{3}$  per cent. be exacted in some essential subjects? For instance, why should not candidates at the Entrance examination be required to make 50 per cent. or even more, on the dictation paper? Experience shows that they may be able to make  $33\frac{1}{3}$  per cent. and still be very poor spellers.

But since it is true that the passing of the High School Entrance Examination is not a sufficient guarantee of a pupil's ability to spell and punctuate, and compose clearly and with grammatical accuracy, there ought to be some examination in the lower forms of the High Schools, which would thoroughly and satisfactorily test such elementary matters as these. For a pupil should not be able to obtain a certificate of having passed any High School examination, if he is very deficient in these respects.

This brings me to the only other topics upon which I intended to touch in this brief paper; these are, the proper course of study, and the character of a suitable examination in the subject. The manner of teaching the subject does not come within the limits that I have prescribed to myself; but, of course, the method of teaching will undoubtedly be greatly influenced by the character of the examination. The aim of the study of composition at this stage, being what I have described it as being, it follows that the course of study and the examination (and consequently the teaching, for all these things are intimately connected) should be of a very practical nature.

As material for work in composition, we have such exercises as

the reproduction of passages of literature, the writing of letters, the writing of original essays, and the correction of faulty sentences. Each of these has its own special points of value as a means of teaching composition; but some are more suitable at one stage than at another. It seems to me that the only one that figures upon the examination paper in composition that candidates for the commercial diploma must take—that is, the writing of original essays upon literary subjects—is one that is very suitable at a later stage of school life, but that for the purposes we have been considering is surpassed by the others. For the ability to compose a good essay demands very much more than the ability to spell, to punctuate, and to compose clear individual sentences. It requires a certain amount of experience of life (more than is possessed by the average pupil at this stage); it demands a greater breadth of reading, and more power of sustained reflection than most junior pupils in the High Schools possess. Then, too, a certain amount of constructive ability and a well-cultivated taste in literary matters are necessary to write an essay that shall have any positive merit. Now, all these things are valuable, and to some extent they can be acquired; but their acquirement is a matter of time. If the pupils are set to work and kept at work writing original essays before they have acquired the requisite experience of life and knowledge of literature, they are asked to make bricks without straw; they are asked to give utterance to thoughts before they have any thoughts to express. This is very likely to create a distaste for a subject of study not over-popular at the best.

Another point of importance is, that exercises in composition, to be as valuable as one would wish them to be, must be corrected. Now, in the essays written by the average junior pupil in a High School, there is such a bewildering variety of mistakes that their correction is a matter of great difficulty to the teacher. He may devote his energy to the correction of errors in spelling, punctuation, and grammar; but that leaves the habit of making other errors to grow more pronounced by repetition. As Bain says in his book "On Teaching English," the writing of an essay is a mixed exercise, partly one in knowledge, partly one in style; and in the writing of even the simplest kind of essay, some knowledge is almost sure to be required, which it is not the proper business of the teacher of composition to furnish.

On the other hand, the writing of letters upon subjects connected

with the actual experience of the pupils, and the reproduction of passages of prose and occasionally of poetry, do not present so mixed an exercise. The latter of these two exercises is especially valuable, for if the passage is within the comprehension of the pupil, the task of reproducing the substance of it is not an unreasonable one. The pupil is put as far as possible in the position in which he will be if he wishes to write after leaving school; he has something to say. The thought has been furnished to him and he is responsible only for the expression. He has been asked to perform a task within his power, and the teacher may reasonably require that it be performed thoroughly and accurately; so that such an exercise will be a step in the cultivation of those two virtues which I have spoken of as being the most important that a commercial course can develop.

But such an exercise does more than this. It familiarizes the pupil with a passage of literature, it trains him to reflect on what he reads, it stores his mind with words and turns of expression. In all these ways it helps to lay the foundation for that essay-writing which will form the chief part of the work in English Composition in the upper forms.

Another exercise in composition at this stage of the pupil's school life is the correction of sentences. If the pupils are required to write out the reasons for their corrections in good form, the exercise is very valuable. For here again the pupil's attention is directed to one thing at a time, and thoroughness may be insisted upon.

I do not mean that essay-writing is of so little value that it may be neglected altogether. On the contrary, it is of considerable value even to junior pupils, and for more advanced pupils it is the most valuable exercise in composition that can be given. But for junior pupils, even the writing of what may by courtesy be called original essays must be made very practical. It must be remembered that the pupils cannot be very original, and as the exercise is a mixed one, of knowledge and style, care ought to be taken that the topics prescribed for essays have some relation to those knowledge studies that the pupils are pursuing at the same time, so that the task of finding something to say may be rendered easier.

Just a word about composition from the point of view of the examination, and I am done. It will be gathered from what I have said that I would advocate the placing of some exercise upon

the composition paper besides a number of subjects for essays. Let there be some work such as I have described, and do not require that pupils shall write two pages upon some subject when all that they have to say upon it may probably be better said in a page. Set up and rigorously exact a high standard in such matters as spelling, punctuation, and grammatical accuracy. If this be done, and if every pupil before proceeding to a higher examination be required to pass this elementary one, the essay-writing in the higher forms will not suffer. Rather the reverse; for having a surer grasp of the elementary work, pupils in the higher forms will be able to devote themselves entirely to the architecture of their essays. As matters now stand, every teacher of composition knows that one of the annoyances of his work is that pupils are able to pass examinations that admit them to higher forms, although they are deficient in very essential matters.

In other subjects of the examination, composition ought surely to count for something. Everything that a candidate writes on an examination ought to be written with some regard to correctness of composition. Incorrect spelling, unreasonably faulty punctuation, ungrammatical sentences should be atoned for by the loss of marks, no matter what the subject of the examination may be. It may be possible for a pupil to write a very good paper in geography, without any knowledge of botany, but if English is the language he professes to write, then what he has to say on the subject of geography and on that of botany should alike be written in correct English.

To sum up: 1, The teaching in composition for a commercial diploma should aim at making each pupil able to spell, to punctuate, and to write grammatical English; 2, The course of study should be eminently practical; 3, The examination should be obligatory upon all pupils before proceeding to the work of the higher forms; and 4, It should be of such a nature as to keep back those who are not possessed of the ability mentioned above.

## PUBLIC SCHOOL DEPARTMENT.

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*PRESIDENT'S ADDRESS.*

GEO. M. RITCHIE, TORONTO.

Mr. Chairman, Ladies and Gentlemen,—Before making any remarks in the form of an address, I wish to express my thanks to you for the honor conferred on me last year in placing me in the position of President, or Chairman of this department of the Ontario Educational Association. It is by far the largest department of the Association, and from its widespread membership it ought to exert a very great influence throughout the Province. I can assure you all that I have done, and shall continue to do, my best to properly perform the duties pertaining to the position.

In considering a theme on which I could base my remarks, I found it difficult to get a subject that was new—new to you, I mean. There are many that are new to me. Most of the subjects that I could deal with have been much better treated by others. From the time I knew that I would have to address you I had in view a subject, and though I changed my mind several times, I reverted to it always as being the one of most general interest to us all, on which I could speak most freely from my personal observation. I hope it may cause each one to consider whether he (or she) is doing his best to make the most of the opportunities placed in his way. My subject is, “Teachers’ Associations—their Origin, Growth and Progress, and Advantages.”

Man (mankind) is a gregarious animal by nature. It was decided at the time of the creation that it was not good for man to be alone. Women have not demonstrated that they are particularly fond of being alone *all* the time. Teachers are taken from these two classes, and as a consequence they are bound to associate. Beginning with the most remote case, the majority here present can understand the pleasurable feeling when teaching the first year in some rural section, fate or fortune caused or allowed the teachers of two adjoining sections to meet. It would be a miracle if they



did not associate. Let the occasion of their meeting be a tea-meeting, picnic, or circus, these two will discuss school matters; and if the two happen to be of the opposite sex, the meeting is all the more pleasant, and the association sometimes lasts for the rest of their natural lives.

In mentioning some other teachers' associations, though they may now be spoken of according to size, their origin in time is not of the same order, some of the smaller growing out of the larger, instead of *vice versa*. The second I would mention is the village Teachers' Association, where the principal and the one or two assistants meet to discuss ways and means for carrying on the work to the best advantage. This is carried out in cities where each school is situated in a district of its own, with its own peculiar conditions and having teachers' meetings monthly. In the village and the city schools, being graded, the teachers are all interdependent. The junior teacher must inform the principal how she is teaching, as, in many cases, in fact in the majority of cases, he can advise in general terms only, how to teach the junior classes.

Next in order of size is (what is new to me) the Township Association. Then comes the County Association, now called, I believe, 'Teachers' Institutes. Questions discussed at County Institutes have a local bearing in many things, owing to the influence of High School examinations or Continuation Classes in some parts of the country.

Next to county associations, I think, might be mentioned the teachers' meetings in large towns and cities. The recent convention of the teachers of this city last month numbered about seven hundred.

After these we have the Ontario Educational Association, where subjects of very general interest are discussed, as well as subjects of very special interest, by the different departments.

The next in order would be the Dominion Teachers' Association, which has not yet come to be recognized as a very regularly organized institution. The National Educational Association, or the N. E. A., as it is called, which favored this city with a visit a few years ago, is probably the best organization of the kind in the world.

Lastly, we might mention the World's Educational Congress, one of which was held in New Orleans fifteen years ago, one in Chicago during the World's Fair, and one in London last year, where twenty-seven nations were represented. It is quite probable that

this year something of the kind will take place at the Paris Exposition.

I cannot claim to have done much more than simply to have named the various associations existing within our knowledge. As to the reason for their existence, the demand or necessity seems to be the main one.

The only one of the list that has not established by its success a reason for its existence, is the Dominion Teachers' Association, held in Halifax two years ago. I will not say that it appears as necessary as some others we have, but I consider that the various provinces ought to know more about one another in educational matters than is now known. It would not be surprising if some here could write out a better description of the educational systems of England or Germany than they could of those of New Brunswick, Nova Scotia, or Quebec.

In their growth some of the larger associations have grown from the smaller, by the combining of a number of different branches, as our own O. E. A., when the Trustees', Inspectors', High School and College Departments joined with the Public School Department, it being the centre. It would be presumptuous in me to attempt to inform this gathering of the growth of the O. E. A., as many here know of it more intimately than I do; but it has really been a growth from a teachers' association, to an educational association.

The growth of the Dominion Educational Association can be described in very few words, as there have been only three meetings. The movement began in Montreal in 1889, and the first meeting was held in that city in July, 1892, with Hon. G. W. Ross, President. The next meeting was held in Toronto in 1895, but was entirely subordinated to the O. E. A. The third meeting was held in Halifax in 1898, at which time there were 720 enrolled members. The next meeting is to be held in Ottawa in 1901, and Dr. McCabe, Principal of Ottawa Normal School, is President.

In the case of the N. E. A. the growth is interesting. In 1857 there met in Philadelphia "a handful of men" in response to a circular sent out in 1856, inviting all *practical* teachers willing to unite in the promotion of the general welfare of their country, and ready to devote their energies to advance the dignity and usefulness of their calling. The membership increased year by year, until now it is numbered by thousands. In fact, it has of late become so extensive that the question of very much subdividing it is seriously discussed. It was, and is, of course, of the United States, but Canadian members are heartily welcomed.

As to the World's Congresses of Education, they can hardly be considered as organizations, being rather an association of those interested in education, at a time and place of some gathering of the nations of the earth, to hear and discuss what is being done throughout the world in the way of education.

Now then, the advantages of teachers' associations. In the smaller associations the advantages are quite different from the advantages derived from associations of a more extensive character. Take, to begin with, the mutual advantage that may result from the association of the first mentioned, if they continue the association for the rest of their lives. The village school or individual city school teachers' meeting. There, more particularly are discussed the various steps in the child's education. Those in the senior grades will hear how the child has been taught, that they may build "on the foundation thus laid, a superstructure, perfect in its parts, and honorable to the builder." The junior teachers may get some advice as to how they might make their teaching more helpful to the child, in view of the work ahead of him. Of course, the advantage of the township and county associations must of necessity be confined to the requirements of each township and county, in the same way that the papers and discussions at our city teachers' associations are suitable only for the city, and would not be at all applicable to the schools outside the city. Then we come to the O. E. A. What are the advantages? We all believe that they are numerous and great, but let us consider a few of them. The constitution and by-laws set out with this preamble: "The objects of the association are to elevate the character and advance the interests of the profession of teaching, and to promote the cause of education in Ontario." Even this association limits its advantages to the Province. These objects are very good, but how are they to be attained? First, of course, would be the hearing of such papers as would be of general interest. From this an advantage should follow which some consider greater than the advantage gained by listening to the paper, namely, the impromptu discussion evoked, making it possible to have the thoughts contained in the paper which has been read, instilled deeper, and fixed in the hearers' minds, by bringing out vividly the points of the paper.

Dr. G. Stanley Hall made the statement that the French and German plan of having one pre-announced subject for an entire day discussed, and collecting the results in the form of resolutions,

would be more profitable than the reading of many papers, with very little time for discussion.

Another advantage is the personal contact of mind with mind. The young teacher has opportunity to measure ideals with those who have had much wider experience. There is a saying that it is a wise person who profits by experience, that is, by his own experience, but a wiser person who profits by the experience of others. Human beings have this ability. It is called the divine principle of *vicariousness*, that is, the ability to get the mental benefit of an act without performing the act. This in itself would largely explain the function of teachers' associations. We need not make the mistakes that others have made. What an advantage this is to the teacher and to the race! This giving of experience is twice blessed. "It blesseth him that gives and him that takes." And herein lies another advantage, common in many other walks of life. We could read these mistakes and avoid them, but a stronger impression is made by hearing of them. The individual teacher is often unevenly developed. He is strong in some points, weak in others. At meetings such as these he hears of ways and means of accomplishing better results, and trying them later, finds them of much assistance. By meeting and interchanging ideas each is benefited.

I have been speaking now more particularly of the O. E. A., but the points mentioned are applicable to the County Institutes or to the N. E. A. It is hoped that we shall have plenty of impromptu discussion during the remainder of our meeting.

The advantages of the Dominion Teachers' Association are worth considering. Empire Day, to my mind, is a result of the last meeting, and the views expressed in their resolutions are highly commendable. As many as possible ought to try to attend the meeting next year in Ottawa.

I will conclude my remarks by giving a question with what was considered a fair answer. What legitimate results should be expected from the annual gathering of teachers? The answer given was: The concentrating of the wisdom of numerous minds and then distributing among all, these accumulated experiences.

*METHODS IN TEACHING MUSIC.*

A. T. CRINGAN, MUS.BAC., TORONTO.

Mr. President and Fellow-Teachers,—In former years I have had the privilege of advocating a wider recognition of the claims of Music as a factor in the educational system of our province, but, happily, such a course is now unnecessary. The advantages to be derived from a systematic course of instruction in Music are so obvious that the utility of its introduction is now rarely questioned. I am frequently in receipt of letters from earnest teachers throughout the Province who are interested in this important subject. The main question asked by all is not, "Shall we teach Music in our Schools?" but, "*How* shall we teach it?" The number who would gladly introduce Music as a regular subject into their course of study is rapidly increasing, as the principles underlying the successful teaching of the subject are becoming more clearly understood. There is a steadily increasing demand for information regarding practical methods which will produce satisfactory results. In the short time at my disposal I shall endeavor to demonstrate only such methods as have stood the practical test of the school-room and are in daily use by the teachers of the Public Schools of Toronto. My remarks will be illustrated by a class of pupils who have volunteered for the purpose from Hamilton Street Public School. These have not been specially trained for this purpose, and have received no instruction in music apart from that given by their regular teachers.

Among the many methods which have been devised for simplifying the teaching of Music in Elementary Schools, I unhesitatingly recommend the Tonic-Solfa System as the best for all practical purposes. No other system has ever produced results in general musical culture which can for a moment be compared with it. The Staff Notation is also necessary, but it has been clearly demonstrated to the satisfaction of the most exacting musical experts that the best readers of the Staff Notation are found in those who have been trained on the Tonic-Solfa System. Unfortunately, however, the impression prevails that the two systems are antagonistic, and that what has been learned through the medium of Tonic-Solfa has to be unlearned when the study of the Staff is commenced. The erroneous nature of this conclusion has frequently been demonstrated, and it may interest you to hear the opinion of



one who has had unequalled facilities for testing the matter in its every aspect. I refer to Sir John Stainer, late organist of St. Paul's Cathedral, and now Her Majesty's Inspector of Music in Training Colleges in England and Scotland. He says:

"It will be found that the majority of those having real musical taste use the Tonic-Solfa as a stepping-stone to the ordinary Staff; and no more scientific method can possibly be found for unravelling the acknowledged difficulties of the Staff as a vocal notation. The ordinary notation will be infinitely better mastered and understood by those who have passed into it through the gates of the more scientific Tonic-Solfa, and it is important to note that all that is learned by the Tonic-Solfaist is of value when studying the Staff; nothing has to be unlearned."

If we concede that a knowledge of the Staff is essential to a complete musical education, the question may naturally be asked, "Why not commence with the Staff and so avoid the necessity of teaching two notations?" The answer to this is simply, that in commencing with the Staff we are compelled to teach, not two, but thirteen different notations, as the major scale requires this number of different notations to represent it in all its various keys. In the Tonic-Solfa notation there is only a single representation of the scale for all keys. The study of Music through the medium of the Staff involves a tremendous expenditure of time and energy in the explanation of notational difficulties which can be employed to greater advantage in training the ear and voice and in general musical culture through the medium of the simpler Tonic-Solfa notation. Musical facts and effects are of more importance than mere signs by which they may be represented. Music, itself, should be the object of all elementary training, and once this has been clearly comprehended, ordinary difficulties of notation will be readily mastered.

In the first presentation of the subject it is important that only such matter as can be clearly comprehended be introduced. From the seven tones composing the major scale we select three as the subject of our earlier lessons. These are the first, third and fifth tones of the scale, known as Doh, Me and Soh. They form the fundamental chord of the scale in all major keys, the chord with which most musical compositions commence, and on which all end. In dealing with these our pupils are trained from the earliest lessons to sing by intervals of a major and minor third, and a perfect fifth to which the octave and fourth are added with the major and

minor sixths when the octaves of these tones are introduced in the third or fourth lessons. Had we selected the first, second and third scale tones the only available intervals would have been the major second and third. When the remaining tones are added they are introduced by the intervals already named, and which have already been mastered. The good old principles of teaching the "common before the uncommon," and "proceeding from the known to the unknown" are here exemplified. It is sometimes urged as an argument against the Tonic-Solfa System that the horizontal representation of the tones in the printed notation gives no clue to the rise or fall of the melodic progression, but you will observe that the modulator or scale chart provides a diagram of every interval, which, for accuracy and absolute correctness, is unrivalled by any other device ever introduced. From drill on this chart the pupil receives a mental picture of scale relations which enables him to sing the tones with confidence and certainty, irrespective of the notation through which they may be represented.

In accordance with another recognized principle, that of "Doing one thing at a time," we have thus far treated of one element of music only. From the consideration of "Tune," we now turn to the equally important element of "Time." The unit of measurement in all musical time is the pulse, or beat, which we instinctively feel whenever we listen to the performance of any well-rendered musical composition. In teaching this, two facts have to be clearly presented, namely: The regular recurrence of the pulsations, and the alteration of strong with weaker accents, resulting in their grouping into measures or bars. In the Tonic-Solfa notation you will observe that the strong pulse is represented by an upright bar, the weak by the colon, and the medium by another bar somewhat shorter and thinner than the first. These divide the notation into spaces of equal length corresponding to the equality or regularity of the beats. When a note occupies a single space its length is one beat; if the space is divided by the insertion of a period, the note receives one-half of the beat only.

[A number of illustrations were now sung by the class of children in exemplification of the principles described.]

In explaining the method of teaching the transition from Tonic-Solfa to the Staff Notation, one fact must be kept clearly in mind, namely: That the notation presented is merely another set of signs for the musical facts and effects with which the pupils are already familiar. If the preparatory work has been thoroughly

well done, it is only required that the peculiarities of the new notation be clearly explained and sufficient drill given to enable the pupil to acquire the necessary degree of facility in note-recognition. At first the progress may seem to be somewhat slow, but it must be remembered that the name of the note has to be recognized before it is sung. The ability to do this is readily acquired, provided the necessity for it is appreciated and suitable exercises introduced with this object in view. The plan which we have found most successful in our Toronto schools is to concentrate the attention on the tones Doh, Me and Soh, and familiarize the pupils with their location on the Staff in all keys before introducing any other tones. When this has been accomplished these tones stand out vividly from the others, to which they serve as unerring guides.

[A lesson on the Staff Notation was here given in illustration of the principles advocated.]

Before concluding, I would direct your attention to one of the greatest obstacles to be met with in teaching Music in our Public Schools. I refer to the common practice of attempting to teach the subject through the medium of black-board illustrations without the addition of printed books or sheet music. The black-board is exceedingly useful in its place, but this is very limited, indeed. The school-room is probably the only place in which our pupils are likely to have the opportunity of reading from the black-board, as they are not likely to meet with one in church or Sunday-school, or on the piano or organ when engaged in divine worship, or the entertainment of their home circle. It is manifestly absurd to expect pupils to sing from the printed sheet when they have never had any opportunity of doing so during their course of instruction. Apart from these considerations, the use of the black-board involves an enormous waste of time, as the time required to write a simple song or exercise is frequently longer than can be spared for the entire music lesson. Without suitable music books part-singing is only possible to a very limited extent. When the notes have been erased from the black-board the reproduction of the alto, or other parts, becomes a matter of difficulty and uncertainty. If our pupils are to become really musical it is essential that they be provided with a liberal supply of good musical compositions, on which alone can a taste for music be cultivated.

[The address was followed by the singing of several selections by the class of children, conducted by Mr. J. Wallis, Principal of Hamilton Street School. This was much appreciated by the members of the Association, who received it with hearty applause.]

*THE INFLUENCE AND PROFESSIONAL SPIRIT OF  
PUBLIC SCHOOL TEACHERS.*

S. J. A. BOYD, EXETER.

Mr. President and Fellow-Teachers,—My subject falls into three parts: 1. Our possibilities. 2. Our low temperature and pressure. 3. How we may improve the status.

Man commands three forces—thought-power, heart-power, and will-power. Teachers are not thoughtless, nor yet heartless, but we are very will-less. We are weak and cringing lest we offend by expressing an honest opinion. We lack the strong individuality of our pioneer predecessors. We are too meek. Not having the courage of our convictions (the boast of the Anglo-Saxon race), we cannot impart it to our pupils.

Men and women are leaving our sorry trade annually, carrying with them skill and experience. Why? (1) Because their worth is not truly estimated and compensated. (2) Because the average ratepayer admits by his action that a child can teach school as well as a man or woman. For these two reasons child-training in Ontario is being left largely to children. We do not despise beginners, but we do deplore the fact that 80 per cent. of our teachers are novices. Why should our children be practised upon by a continuous train of apprentices? How few teachers acquire the skill of even ten years' experience!

Who are to blame for this? Three parties—ratepayers, teachers and the Education Department.

First, ratepayers are inconsistent. They say a boy or girl of eighteen cannot sign a note or cast a vote. Too young they say, also, to marry or to rear children, and yet these ratepayers place such boys and girls in charge of fifty children. Our school law says the teacher should exercise such discipline as would be used by a kind, firm and judicious parent. Can a minor do that? You tell me the earliest age at which a person should marry and I'll tell you the earliest age at which he or she should teach school. The physical, mental and moral development of a half-hundred children is no child's play. It is an awful undertaking even for one of well-formed character. When the blind lead the blind, disaster follows. The children's birth-right is being sold for half a dollar

when any but those of the widest culture and richest experience available are employed to teach.

Second, we lack professional spirit because we have no self-esteem. We are next to a set of nobodies. We know it. We feel it. We admit it by the miserable pittance we ask as a salary. The public take the hint and say, "Well, perhaps, it is as much as they are worth. If they were worth more they would surely know enough to ask it." How much energy, tact, vigilance, culture and character can a section expect for \$200 a year, or less than a dollar a day? You say the competition is keen and, therefore, it is a survival of the fittest. No, it is a survival of the cheapest. The trustees, who are the supreme judges, are too often incompetent to measure the merits of the numerous applicants. They practise economy without counting the cost, and the lowest bidder usually secures the appointment. Is that in any sense a survival of the fittest? What does the trustee thus do for our children? He thrusts upon them a strange and inexperienced person as an ideal type of manhood or womanhood. He teaches lack of faith and reverence and respect for authority. The child knows the low commercial value of the teacher, and that all these fine sentiments may be ruptured any moment for the sake of a few dollars per annum.

What does the trustee do for the teacher? He takes the spirit out of him; he makes him restless to better his condition; he lowers the noble ideal of the profession; he cools the teacher's enthusiasm by reducing the fuel. Ratepayer, if you wish the best results from your horse you must feed him; so also with your teacher. How can a person wrestling with penury enlarge his nature sufficiently to develop the soul of the child? Preachers are self-guarded in their way. Why not teachers?

Rural teachers to-day are in a state of beggary. Many of them positively cannot afford \$5.00 to attend county convention, although the law requires them to do so. That is the reason this room is not filled to the door every year. To city teachers, who get a fair recompense, this may seem a strong statement, but the rural teachers *en masse* know it is true.

You say it is demoralizing to talk of the teacher from a commercial standpoint. You say we talk too much of salaries and not enough of education. Time was when we need not mention salaries. I would it were so still. We discussed phonics and decimals and overlooked our fading salaries. Now we must attend



to them if we are to have an existence. Our pittance is a byword in Ontario. Professional men make mock and laugh, and say we have no profession, and what they say is true. We have no unity or organization as a profession worthy of the name. We underbid and undermine. There may be honor among thieves, but, in many instances, there is none among teachers.

Third, the Education Department is responsible for the ebb-tide of the profession. I am treading on very dangerous ground now, yet I must advance. By some chance or mischance the educational system has become part of the political machine. It matters not which party is in power, we have no additional assurance that our requirements will be met. We boast of the special advantages of representative government, yet the Minister of Education may be as autocratic (so far as the teachers are concerned) as the Czar of Russia. He may go forth with regulations under one arm and counter-regulations under the other, and who dare say him nay?

Over 9,000 teachers who have the educational interests of this province at heart, and who know much about the requirements of the children of the masses, have *no* voice in saying what is best and what shall be.

Do we even venture to raise our voices against some prevailing evil, or a monstrous text-book? Oh, yes! We pass resolutions to line the waste baskets of "St. James' Square." The Minister is not obliged to listen to our appeal, and he does not listen. Why do not the High and Public School teachers have a *representative* influence in perfecting the Public School system so ably begun by Dr. Egerton Ryerson and considerably promoted by the Honorable, the Minister of Education, G. W. Ross? We are the men and women who educate 95 per cent. of the people of Ontario. Why are we silent, while politicians roar? Are we made of meaner clay? Do we know less about the usages and abuses of the system? With all deference to our local members I make the statement without fear of contradiction, that there are scores of High and Public School teachers who know more about our educational administration than the average M.P.P. And why shouldn't we? It's our duty. It's our business. This admitted, why do we not have some voice in how we are governed educationally? "*But*," you say, "*we have an Educational Council.*" Yes, *we have an Educational Council.* Let us get it under the microscope. Twelve members—one High School teacher appointed; one Public School Inspector appointed; one Public School teacher appointed;

three College men appointed, and six University men, appointed by the Senate. All appointed, not *one* elected representative member from either the High or Public Schools which represent the great mass of our educators. The Minister might just as well issue his mandates from one mouth as from thirteen. What we want on that Council (and I say this with all due respect to the sitting members) is a fair proportion of men whom we have chosen to present our views and to promote our interests. To illustrate the contempt in which the present system of appointment is held, I may say one of our number was offered a seat by appointment in said Council, and he refused, saying, "Could I obtain the seat with the confidence and vote of my fellow-teachers, then I should deem it an honor. As it is, I refuse the position." More power to such men!

That Council, if properly elected, would, I believe, be a valuable support to our school system. Many evils we now complain of would soon be removed. As it is, it is useless, from the Public and High School standpoint at least. It defeats the very object for which it was created. What it ought to be, and what it must be, if it is ever to become efficient as an executive body, is to be thoroughly representative of the Primary, Secondary and Finishing Schools of the Province. The University Senate should be privileged to elect four members for a term of two, three or four years. So with the High School men, so with the Public Schools. The best available would be elected in due proportion. The Minister's hands would be restricted and yet strengthened. The thirteen together would get at the root of the matter.

Having pointed out what I consider a more effective means of administering the educational affairs of Ontario, I shall now endeavor to outline a plan whereby this ideal may be reached. It is useless to censure ratepayers for lack of discrimination in selecting teachers. It is useless to blame teachers with want of co-operation and self-esteem, or the Educational Department with being too autocratic, unless we are prepared to suggest ways and means whereby the present status may be improved upon. In rearing any vast superstructure we must look well to the foundation. That is what is wrong with our system to-day. The educational superstructure is too great for its foundation. I've been at work upon the foundation for the last number of years and thus I know. Let us gather round and lay a new and broader basis for our system, and while we are doing so, I wish you to note that we are also making our influence and professional spirit wider and deeper.

We meet in County Convention once in twelve long months. Some of us are late in getting there, some leave early, and some for obvious reasons don't get there at all, although that is an infringement of the Regulations. We make indignant speeches, and give our annual groan, which is embodied in those sacred resolutions. We render our paper, or teach our subject, from which we get less or more inspiration. We appoint our delegate, pay our fees and go away congratulating ourselves that we have done what we could. Now, I wish to point out to you that we have not begun to do. Like Cæsar, we "have come" and "have seen," but as yet we "have not conquered." Here is my plan of campaign. That each County Association divide the Inspectorate up into a number—say six districts. That the Executive Committee of the Association be composed of one member from each district. That these have the power to call all the teachers in their respective districts together in some centrally situated schoolroom, on some Saturday, every two months. The object of these meetings to be (*a*) To consolidate the teachers into an organized body worthy the name of profession; (*b*) to develop the best methods in teaching; (*c*) to advance all educational interests, both local and national. That a full staff of officers be elected at the first meeting, and minutes of all proceedings be sent to county secretary. That the Inspector be director of district meetings. That each district be held responsible for one number on the programme at County Convention, and that all matter be thoroughly discussed in district meetings before being presented at county meetings. That trustees be urged to attend these meetings. That all resolutions be handed over to the Central Committee, which shall report to the County Association, and thus arrive easily at a consensus of opinion. That each county send a strong delegation to the Educational Association meeting here in Toronto. In a word, that we become such a homogeneous body, so thoroughly representative, that we shall at once be recognized as a potent factor and given our places in the system.

What are the advantages which shall flow from this unity of voice and concert of action?

1. More skill in work.
2. More unity between High and Public School teachers, as well as among Public School teachers themselves.
3. Show ratepayers that we mean business.
4. Lighten the Inspector's labors.

5. Regenerate county conventions—almost obsolete in some counties.

6. Ensure stronger representation at the O. E. A.

7. Would give us one voice, strong, clear, unmistakable.

8. Would give timid beginners a chance to acquire confidence.

9. In a word, it would give us extended influence, enriched knowledge, greater ability and usefulness. It would lift our poorly paid and humiliating labor up to the dignity of a profession, and make us proud to say, "We are teachers."

I may say in defence of the utility of the scheme, that we have tried it in West Huron since last year, have held our convention last month, and never in our history have we had a larger attendance, a fuller treasury, more enthusiasm or a more profitable meeting. The tangible proof is in the fact that we have two delegates here this year instead of one.

Now, sir, can we afford to drift any longer? Is not our spirit and influence practically zero? Are we an organized and well-disciplined army marching on to victory, or are we a mass of raw recruits destined to suffer defeat? Defeat! Why should a body of intelligent men and women such as I see before me this morning know defeat? Have we not the power to make or mar the nation? Surely we can make or mar ourselves. We have marred ourselves, and the prominent question now is, "How can we make ourselves?"

*Make ourselves?* A body such that the public will recognize our worth.

*Make ourselves?* So that the three *learned* professions shall be pleased to welcome us within their ranks.

*Make ourselves?* So that the Education Department will be obliged to give us control of our own text-books, examination and profession.

*Make ourselves?* So that we can transpose Byron and say, "We love not man the less, but teachers more for these our interviews."

Let us think! Let us ask! Let us be! If the scheme I have proposed be not practicable, let us develop one that is. But as a profession let us have a plan, an aim. Not failure, but low aim is crime. Our aim is too low, therefore we are criminal. As a result we must be punished. We are punished. Now, let us apply the remedy. Let us exercise thought-power, heart-power and will-power for the edifying of our own ranks, and then the ranks of the nation.

## THE NECESSITY OF RELIGIOUS INSTRUCTION IN OUR SCHOOLS.

W. R. MANNING, ESSEX.

Mr. President and Fellow-Teachers,—We are here, as members of the noblest profession among men, to deliberate on the most important problem of our profession ; in fact, the most vital problem of the human race—the systematic, practical, religious instruction of that race, while their natures are most impressionable and most easily directed.

There is much and strong prejudice against the introduction of this study into our schools ; but, as true teachers, we should be searchers after truth, and approach the question with unbiassed minds.

We will consider the subject in the form of answers to two questions: (1) What is education ? (2) What are the fundamental principles by which education should proceed ? Education is the process of developing to their utmost all the faculties of our complex nature, and the right direction of our activities. In fact, there is only one process, for, if our faculties are fully and co-ordinately developed, they will direct our activities aright. And that is what I mean by religious instruction—not dogmatic or denominational instruction in beliefs about the Bible, but instruction in the fundamental principles of human development and human relationships with our fellow-creatures and with our Creator. This is religion.

The subject is thus narrowed to one question : What are the best means of human development ? It must be quite evident that God had man in view from the beginning of creation, as no other being on earth could have made use of the marvellous stores and forces of nature ; and it is quite as evident that the same omniscient Creator had in view the development of man ; and He has given us ample means of knowing the *lines along which that development must proceed*. We have five sources of such knowledge : Nature, Intellect, Revelation, History and the Occupations of Life : and all coincide perfectly in pointing to three elements of human development—a *material basis* acted on by *intellectual* and *spiritual* forces. And they also coincide as perfectly that the *latter is the controlling, the vital element*.



Nature reveals this to us in every child ; first, merely an animal, then showing intelligence ; and, lastly, exhibiting a moral sense of right and wrong. Our intelligence assures us that man must have material for his support, intellect to make use of that material, and a moral nature to guide him in his relations with the other beings with whom he is placed. Revelation informs us of the vast material preparation for man in the great periods of creation, and of man's intellectual and spiritual nature. It gives us another revelation of this trinity in the life and teachings of Christ, who was sent as an example. His human life was developed in the great highway of Roman material power, and under the influence of Greek intellectual culture and Hebrew spirituality. In His teaching He ever took the material—the lilies, the sparrows, the leaven, the well of water—spoke about them with an intellectual acumen that has been the wonder of His and all succeeding ages, and, above all, He *spiritualized* everything. History shows us the same order in the advancement of the race and of nations ; first, appearing as savage hordes ; then showing intelligence in organizing various forms of government : and, lastly, developing more and more to our day a moral or religious nature.

Every nation that has made its mark on the world has had a vast material basis, and a correspondingly great intellectual superstructure. The Hebrews produced their Psalms, Prophecies, Gospels, Epistles and Revelation ; the Greeks their Literature and Art ; the Romans, their Government and Law, and have failed and fallen because they did not develop spiritually, in proportion, to regulate the material and intellectual. The great Empire to which we are so proud of belonging, contains the three essential elements, and her future success or failure depends on whether she continue to follow that Guide, which our beloved Queen said was the secret of Britain's greatness.

The last illustration is from human occupations. The successful man in any sphere of life must have a substantial material basis in health and strength of body, property, etc. He must have intelligence, but he must also idealize. He must experiment, he must venture, but above all, he must spiritualize, carry on his vocation according to the unchangeable and eternal laws of righteousness or he cannot succeed in the real meaning of that term.

Let us now examine the present with reference to these three elements of development. The present shows the greatest material advancement of all the ages of the human race, out of all proportion

to mental and spiritual growth. The growth of cities, increase of comforts and luxuries, multiplication of inventions, mineral development, the great variety of applications of electricity; these and many other objects are crowding our lives with the material with such persistence and attraction, that unless we are able to spiritualize it we are building our house on the sand, and great will be the fall of it. For, and this is the key of the whole question, unless the material is acted upon by the spiritual, failure must follow. This is the inevitable result, according to a universal psychological principle: *the material appeals to the sensuous, and unless the sensuous is idealized it becomes sensual, and the sensual always, always brings decay and death.* If we spiritualize the material within and about us, we shall become immortal, otherwise the material will die, and in its death drag down the spiritual within us to the same death.

We will next consider some of the present needs of this spiritualizing power. Half the civilized world is under popular government. De Tocqueville says: "Despotism may govern without faith, liberty cannot. As the political tie is relaxed, the moral tie must be strengthened." In order that a person may command, he must learn self-control, to obey certain laws of his own nature; and, in order that a nation may be its own master, much more to rule others, it must learn to obey the laws of that higher power which placed man in communities. Dark South America and Darkest Africa are being pierced from all sides, but, unless those who enter are guided by the True Light, the darkness will be greater than ever. The vast conservatism of Asia is being aroused, and unless Christian nations bring the true leaven of the Kingdom of Heaven to bear upon it they will be overwhelmed.

Formerly literature was for the few, now it is for the multitude. Then it mattered little how poisonous it was, so long as the people remained untainted, as the Court of Charles I. in Puritan England. But how different now when surface froth and poisonous dregs are entering every home in the civilized world, tainting and enervating the rising generation. And how necessary to combat this giant evil is systematic instruction in the true ethics of life *at the time* when truth will be best received and make the deepest impression.

One more instance of present need is the interrelationships of modern life. It requires more than 1,000 persons to produce a great daily. A strike on a railroad, or in a large manufactory, affects every member of scores of other vocations. An immoral act

by a settler in early days, thirty miles from anyone else, might affect himself alone, while the same act in a populous community might bring irreparable loss, unspeakable grief, and eternal ruin to scores of lives. Another requirement in the rush of the present age is, prompt and sure action based on true moral principles, and this requires such *regular instruction* and practice in *early life* as to become a habit.

I have thus far tried to show the need of vital spiritualizing power for the advancement of man in all his spheres of activity. I will now try to show the best means of securing that power. "As the twig is bent the tree is inclined," expresses the means. Regular, systematic, religious instruction, while young, and the mind and spirit are wax to receive and adamant to retain.

Where *should* this be done? In the *home* and in the *church*. The Jews educated their children under those two auspices, and with what result the continued existence of that race to the present, although trampled on by the greatest powers of the earth, tells us. Jesus, our perfect example, in the temple at twelve years of age, not through any miraculous revelation, but by regular systematic home and church training, shows us what should be done.

The Protestant churches have lamentably failed in accomplishing what they should, with their light and spirit, in training their children, and for two reasons. The birth of Protestantism was in the agony of adult polemics, and its rebirth in the last century was in the throes of adult frenzy. These have led to two lines of dealing with children, (1) to teach and drill them in Bible knowledge and church doctrine and practice in too severe a manner, which has led to a serious reaction in many ways. (2) To leave the children to grow up like Topsy, with no knowledge of spiritual things, and their faculties perverted, and then depend on some whirlwind of supernatural power to catch them up and carry them to heaven.

The homes have failed in the distractions of society, in the burdensome duties of the house under the requirements of modern ideas of living, in the many lodge, church and other meetings, in the rush and competition of artisan, business and professional life, and in the general lack of control in the home.

The Sabbath School has failed from lack of time, lack of informed, trained, spiritual teachers, and from neglecting plain, simple, Bible instruction and memorizing.

In view of the absolute necessity of spiritualizing power over

material things, in the individual, social, commercial and political life of the human race, I believe it to be the duty of the State to avoid the peril of its existence, to provide for adequate and proper religious instruction in the National Schools.

Three objections rise at once to our minds : The overburdened school programme, religious differences, and many teachers not being professing Christians. Our programme is burdened in two ways : We give undue prominence to some subjects, and we do not teach according to natural laws of development of the child. Religious instruction would more than overcome both objections. There are two main elements in education, expansion and organization—extending knowledge and enlarging powers and organizing that knowledge and those powers. Examples of the former are the alphabet, phonic elements, geography, history, facts and principles of mathematics and science, etc., etc. ; of the latter, reading, commerce, solution of problems, experiments in science, manufactures, statesmanship, etc., etc. How expansive is the attempt to grasp ideas of time, as of the early settlement of our country, the Norman conquest, the time of Abraham, etc. How much more expansive then must it be to grasp the idea of eternity ! We all know how expansive it is to view exhibitions of power. What must be the influence on the growing nature to think of the power of God in creating this earth and storing it with such vast supplies and forces for mankind through all the ages of His existence ! How enlarging to the human nature it is to read of the noble lives of men and women who have sacrificed for a few of their fellows whom they loved ! How much more, then, to reflect on the sacrifice of Christ for all mankind, through endless ages, and that while we were yet in rebellion against that wise loving Creator ! One other advantage this expansion has, is that while all other forms of expansion but enlarge our minds within themselves, this enlarges us in our relation to our fellow-beings, and thus forms a perfectly harmonious development within and without, which alone fulfils God's purposes in the creation of man. How wonderfully this development is shown in ignorant people and savages who have become Christians, and what marvellous, expansive power history shows in religious nations, so long as they were influenced by truth, the Greek in literature and art, the Roman in conquest, law and government, the German in philosophy, the United States in invention, the British in colonization, moral reform and missionary enterprise.



In organization, also, religious instruction would aid greatly. St. Paul's "Know ye not that your bodies are temples of the Holy Ghost," impressed on the imaginative nature of children would lead to purity of thought, word and deed; and the command, "Whatsoever ye do, whether ye eat or drink, do all to the glory of God," and the idea that every thought, word and deed have a never-ending influence, would lead to a better use of every moment and to fuller organization of every faculty.

The will would be strengthened and become an aid in school and all after life. There are two main aids of the will—the knowledge that we are right, and hope. Religious instruction will give these in the highest degree. In fact, it will feed the will on omniscience and omnipotence, and make it irresistible in overcoming our evil nature and injurious habits, and in co-ordinating and using all our powers of mind, body and spirit to their utmost and in the right.

Giving this instruction will also aid the teacher. It is so easy for a teacher to deceive the people. If a merchant deceives a customer, it may be soon found out; if a doctor makes a mistake the effect is soon known; if a lawyer fails in a case, the result appears at once; but many of the teachers' mistakes will not be known till after years, when it is too late to rectify them. It is only the true principles of religion that can enable the teacher to look beyond the present and teach conscientiously for the future.

Must we not admit, then, that the beneficial effect, on both teacher and pupil, of religious instruction in the school, will more than make up for the loss of even half an hour a day? This half-hour might, with actual advantage, be taken from the time spent now on arithmetic, which is doing more than any other one thing in impressing on successive generations of children an overpowering sense of the importance of material things, especially of the almighty dollar. Taking this half-hour would be a double gain. It would take that much time from a materializing subject, and give time to spiritualize or properly idealize the remainder.

To the objection that some teachers are not Christian, God has made a marvellous provision in the confidence of children and their natural respect for and reverence of their teachers. Besides, trustees ought to see to it that no teacher who cannot conscientiously give the moral instruction of the Bible, has control of any Public or High School.

In answer to the objection of the differences of religious creeds, I would call the attention of the churches to the great danger



that materialism and mammonism may destroy all our higher ideals, to the desecration of the Sabbath so necessary for individual, commercial and national advancement, to the decay of moral instruction in our homes, to the terrible atrophy of the public conscience in reference to intemperance, the social evil, and commercial and political life, and appeal to them to put away any minor differences and present a united front to overthrow by the Sword of the Spirit, the Word of God, the forces of materialism, which otherwise will destroy our Christian civilization as they have every civilization of the past.

One other argument. All the successful teachers and systems of the world have been distinctly religious, and the testimony of every great educational reformer has been that any successful system must be distinctly religious. And as the world looks to physicians and scientists to discover new principles and practices in their lines of work, so the world looks to teachers. I believe we have in systematic, daily, religious instruction of the young and growing and formative mind of children, that which will do more than anything else to make education what it should be in developing and rightly directing our faculties at the proper time.

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## EDUCATIONAL PSYCHOLOGY.

JOHN WAUGH, D.PÆD., WHITBY.

*(An Abstract.)*

1. In the short time at my disposal this afternoon I do not propose to attempt any such sketch of Educational Psychology, as the title of my paper might suggest. I must warn you at the outset that I can do nothing more than point out some of its defects and difficulties, and one or two of its puzzles. I am like yourselves, a seeker of the truth rather than an expounder of it.

2. One of the main defects in the students' text-books on Educational Psychology is the lack of a suitable introduction. The student is at once plunged *in medias res*, and the difficulties of Psychology lie at the very threshold. Here is the battle-ground of the most fiercely conflicting opinions.

3. Scarcely any two texts adopt the same philosophical basis. This is specially manifest in the treatment of sensation. The discrepant views of the various writers confuse the student, and render any fruitful comparison of the views of one writer with those of another impossible; whereas, given the point of view, the scheme of each work would at once appear in its proper perspective.

4. A second defect in our psychological texts lies in the fact that in many cases they are nothing more than a list of the "faculties of the soul," and this, notwithstanding a strenuous denial of "the old faculty psychology," constitutes their chief stock-in-trade. Exhaustive tables are given, definition is piled upon definition, and the simplest facts are set forth in the most amazing phrases. Why this ingenious erudition? Are we so little sure of our ground that we must baffle criticism with verbiage? The language of Psychology should be a living language.

5. A third defect is that much of what passes for Educational Psychology is inconsistent with common-sense, and leads to the absurdity of solipsism: *i.e.*, each one of us is a distinct and separate individual; we can be aware of nothing but our own states; these states are given in individual sensations, so that what we conceive as a world turns out only to be a series of states of the self. I do not think that any sane man can accept such a conclusion as this, and yet I do not see to what other conclusion the popular psychology can lead us.

6. But a defect quite as serious is that Educational Psychology is not even consistent with itself. To illustrate this I may be pardoned for quoting from the text commonly used in our Model Schools.

On the frontispiece page of this book I find the following statement: "The old or metaphysical Psychology inclined to ignore the body, the new or physiological Psychology inclines to ignore the soul. The true Psychology finds in the brain and nerves the bridge between mind and matter." Now, it must appear from this statement, that between mind and matter there is a great gulf fixed, and that the bridge over this gulf is the nervous system; but this bridge, as Baldwin himself would admit, is itself a part of the material world, and is material in the same sense in which any part of the body is material, but if so, then this bridge is short by a couple of feet at one end.

Lotze tries to bridge this gulf, beginning from the side of the mind with a bridge of ideas; but this bridge, for an analogous reason, is short by a couple of feet at the opposite end.

Some have tried to evade the difficulty by denying the existence of matter, and others by denying the existence of mind. Others, again, frankly admit that "the passage from the physics of the brain to the corresponding facts of consciousness is unthinkable."

You must allow me a reference to the well-known work of Professor Dewey in illustration of the incompetence of Educational Psychology to solve the questions which it proposes to itself. The paragraph is found in his account of the genesis of knowledge, and is headed "Second objection." This paragraph is an attempt to justify the assertion made in the preceding page, "When we know a thing we recognize it"; *i.e.*, all knowledge must be founded on previous knowledge, and this must mean that knowledge never had a beginning. Mr. Dewey attempts to get over the difficulty by making a distinction between knowledge and experience. For this purpose he is compelled to identify knowledge with mere sensation, and further to make the remarkable statement, "The infant has all the sensations that we have, and yet no one would say he has the knowledge. The reason for this is he does not have the past store of experience with which he may connect the present." Now, from this it appears that experience is at one time, for Mr. Dewey, knowledge, and at another time sensation, and that it is only by the see-saw process of making it appear to be the one at one time, the other at another, that he is able to give

any plausibility to his theory of the genesis of knowledge at all. If Mr. Dewey's theory is open to any more consistent interpretation, I have to confess my inability to make it out.

One is almost tempted to hold the same opinion of Educational Psychology, which the elder Mr. Weller is said to have entertained of the English alphabet. "When you know it, Samivell," said he, "you will know some things vich you don't know now, but vether it is vorth vwhile to go through so much to learn so little is a question."

Now, another charge which I have to bring against much Educational Psychology is that it leads to pure determinism, and this applies specially to the treatment of the nature and origin of sensation, and to the doctrine of the "Association of Ideas" with that utilitarian theory of morals which is its only logical issue. From the cradle to the grave we drag behind us an ever-lengthening chain along the line of least resistance. And if this were true, life would be but a play and morality a dream.

If Psychology is ever to be more than an amusing puzzle, it must not contradict the presumption of common-sense—that the world is a real world, and that we are capable of knowing it as it really is; or more briefly, that there is no opposition between reality as it is and as it is thought.

It must not contradict the principle upon which all the special sciences rest, viz., that the world is a cosmos of experience, a fixed system of infinitely inter-related elements.

It must not contradict the philosophical theory that there is an end and aim toward which the whole creation groans and strives.

Educational Psychology must not set itself up in opposition to the very ideal of education itself, and I assume that it will be admitted without question that this ideal is the "completely moralized man." But if man is to be moral he must be aware of himself as self-determined and free—free in knowledge and free in action. An educational psychology which is unable to reach the idea of self-activity, self-determination and freedom is not worthy of the name it bears. It will not do to assert that the theoretical reason compels us to adopt the doctrine of determinism, and at the same time ask us to believe in freedom. There is no such antithesis between reason and faith. There is no opposition between reason and faith at all. We must disbelieve what reason shows to be false. The fruits of educational psychology must arise largely out of the established conviction, that man in his ideal nature is absolutely self-determined and free.

And lastly, Educational Psychology must not contradict the conviction of the religious consciousness, that the world is in every one of its phases an expression of the Divine Nature in Whom and by Whom and through Whom are all things.

Had the space allowed me permitted, I should have been glad to press the claims of Logic to a place on our curriculum in connection with Psychology. Logic cannot, perhaps, teach us how to reason, but, at any rate, can show us how we do reason, and this indicates, I think, that no psychological course is in any sense complete without it. Knowledge, we are told by Herbert Spencer, proceeds from the particular to the general, and this is one of the principles upon which educational procedure must be based. It would be interesting to trace this process of knowledge in the various subjects on the curriculum, *e.g.*, in botany and physics, in applied and pure mathematics. It would be interesting and instructive further to examine just *how* particular these particulars with which knowledge begins may be, and just *how* general these generals are which constitute its goal, and whether, *e.g.*, that mode of the first figure known as "Barbara," has any more than a formal validity. All these questions and many others which readily suggest themselves, might well be dealt with and incorporated in the teachers' psychological course.

The claims of physiological psychology have so many advocates that I have not thought it necessary to add myself to the number. There is no doubt that upon the proper physiological conditions the educability of the child must largely depend. The results reached so far in the psychological field are, perhaps, not very reliable, nor very encouraging, but then there are the centuries.

Neither have I thought it necessary to press the claims of child-study, but it must be obvious that there is here a wide field of investigation, which lies close to the hand of the teacher, and which he should be in every way encouraged to prosecute. The spring is purest and most translucent near its source. The loveliness and mystery of childhood, their yearning thoughtfulness, their linked laughter and their sober joy must ever be a source of unceasing delight and earnest inquiry to him who believes that

"Not in entire forgetfulness,  
Nor yet in utter nakedness  
But trailing clouds of glory do we come  
From God who is our home."



*DOMESTIC SCIENCE AS AN EDUCATIONAL FACTOR.*

MRS. HOODLESS, HAMILTON.

"We do not know what the future has in store for our children, nor is it the business of school boards or teachers to inquire. The question is, in what way and by what means can we best develop the special capacities and aptitudes of each child, moral and intellectual, so that it shall become a self-governing and self-dependent citizen?"

In mediæval ages, when education was controlled by the Church, when the chief object was to acquire sufficient knowledge of law and theology to enable the clergy to maintain the supremacy of the Church, book-learning embodied the idea of education. That such education produced narrow-minded, unprincipled bigots, every page of history will testify; yet, notwithstanding this example, the mediæval idea of granting certain distinction to what have hitherto been called the "learned professions," has been upheld with wonderful tenacity. Nevertheless, the pompous lawyer and dogmatic parson have had their day, and will soon be found only in the literature of the past. Scientific, industrial and commercial progress have altered the value of mere book-learning. Instead of the "learned professions" ruling society, each man and his occupation becomes of individual importance. A man may make a fortune out of successful speculations, and thereby have the power to control the education of his district. Some of the finest educational institutions in the world have been established by men of little book-learning, but of powerful executive ability. The fact that we have been influenced by mediæval ideas in our system of education and have not kept in line with changed conditions, is being recognized on all sides, and a general demand is made for more modern methods.

Prof. Dewey says: "The changes demanded are as much a product of changed conditions and as much an effort to meet the needs of society as the changes in modes of industry and commerce."

As already stated, our business is to learn by what ways and means our children may be developed so as to meet these changed conditions.

When we urge upon ratepayers and school boards the necessity

for manual training and domestic science instruction in the schools, we are informed that "it is not the function of the school to teach a trade, that such utilitarian views of education detract from the established (mediæval) idea of education." In vain we point to the fact that these methods of education are a need of the time; that they are simply providing for the child, in organized form, what their parents received in a hap-hazard way through the daily activities of life, before machinery and other modern contrivances removed so many industries from the home. Then women were so fully employed in the weaving and manufacture of clothing, the curing of meats, making the candles and the thousand and one household arts, as to have no desire to become typewriters or book-keepers, and both men and women thought they were well educated when they could "read, write and cipher."

We point out the effect of our present system in the overcrowded professions, in the deterioration of manual skill; we quote authorities, such as Dean Farrar, who says: "The *traditional* system, which we call education, neglects some of the faculties of all minds and nearly all the faculties of some minds."

We give the decision of the Royal Commission of England, "that the true worth of education, its vitalizing influence on the scholar's mind, depends less than is commonly supposed upon the particular subject through which the mind is approached, and more upon the stimulating methods by which the mind is aroused." "That education is development and discipline of faculty by the communication of knowledge, and whether the faculty be the eye and hand, or reason and imagination, and whether the knowledge be of nature or art, of science or literature, if the knowledge be so communicated as to evoke and exercise and discipline faculty, the process is rightly termed 'education.'"

We maintain, supported by writers of authority, that the cultivation of manual dexterity reacts advantageously upon the intellectual faculties, and is an important aid to their development; that it quickens the perceptive powers and adds interest to school life: that the senses should be trained agents of the mind; yet, parents and school boards cling to the traditions of the past, and because it means a little readjustment, a little extra trouble and expense, go on with the same old cramming process until our children lose what natural aptitude God gave them, and leave school as Spencer says, "with nothing but a memory of words."

An eminent educationist said at the International Congress in

England last summer, "Our schools are factories, and teachers mill-hands." Hitherto the school has been isolated from the duties of life. An authority says: "The very place where children are sent for discipline is the one place in the world where it is most difficult to get experience, the mother of all discipline worth the name."

This brings me to the special subject upon which I am to address you to-day, and which, I am firmly convinced, contains more of the essentials of education, as represented, than any other subject.

Domestic Science and Art are even more valuable than manual training, insomuch that they combine the intellectual and general faculty development together with POSITIVE utilitarian value.

Domestic Science is applying knowledge by stimulating methods. We know that *interest* must be aroused before a child can receive knowledge.

By way of illustration, let me invite you to visit a class of girls, say, from 12 to 15 years of age, at work in a domestic science classroom. Watch the interest with which they carry out instructions, then pass on to a class in almost any other subject (especially grammar), and note the difference. One of the strongest reasons for the teaching of domestic science and art lies in its value as a stimulant for other subjects. By correlating the various subjects, such as arithmetic, geography, history, spelling, composition and physiology, an added interest is given to these subjects, each of which occupies a prominent place in a domestic science course. In addition to stimulating the interest, it teaches methods of neatness, cleanliness, promptness, economy and executive ability.

In the Domestic Art Department, Prof. Dewey says: "The whole history of mankind may be taught through the cotton and wool fibre." Familiarity with things can never be given by a study of words alone. The perceptive faculty must be trained. Mechanical Drawing, Arithmetic and Euclid are practically applied in the drafting of garments with the *advantage* of a finished, useful article, to *prove* the value of scientific instruction, and which means much more to the child than bare theory.

Bear in mind, it is the development of the intellect we are considering to-day, not the preparation of palatable dishes, and fashion plates, but through the application of school studies to the daily necessities of life, to bring the school and the home into closer relationship, and by stimulating the interest, change the general attitude of children's minds towards education. The mental and manual interests have been divorced too long.

Dr. Armstrong, of Oxford University, says: "It is, perhaps, not generally known that it is all but impossible to give true technical education in this country (England), owing to the extraordinarily defective condition of our Preliminary School training; so that unless the children in Elementary Schools are taught to appreciate the main *principles* of scientific method, and are so practised in their use that they become part of their nature, it will be impossible for them afterwards to properly avail themselves of the higher training which is offered to them, and which alone can render them thoroughly competent as industrial and domestic workers."

Notwithstanding the evidence of such authorities, our girls are expected to become expert housekeepers, cooks and needlewomen under the instruction of incompetent teachers in the home after they leave school. We are told that such subjects are out of place in the school. As a noted educator says: "These objections would be ludicrous were they not often so effective as to be tragic."

We said at the beginning that "it should be our object to develop the special aptitude of each child." Have you considered the question in its relations to boys and girls? Why should a girl be *educated* on precisely the same lines as a boy? Do girls possess the same aptitudes as boys? Are they intended to occupy the same position in life? Is it not possible to develop a girl's intellect on lines more directly related to her future occupation?

We have been told that the "true worth of education, its vitalizing influence, depends less upon the subject than upon the stimulating methods by which the mind is aroused."

Experience has proved that no subject taught in the schools has aroused so much interest in the pupils as Domestic Science and Art; and the testimony of teachers, wherever this subject has been introduced, is, "that the academic work has been substantially and perceptibly improved."

In advocating the introduction of Domestic Science and Art into our school curriculum, it may seem somewhat paradoxical to say, it does not mean the addition of new subjects. The object is to introduce improved and practical methods of conveying knowledge, and to lighten, rather than increase, the burden now put upon teacher and pupil. The additional tax comes in the preparation of teachers for this subject. They must not only know all that the regular Public School teacher knows, but must have a knowledge of bacteriology, physics, chemistry, physiology and digestion, food and its functions, hygiene, economics, home nursing and

emergency, laundry work, and last, but not least, the actual preparation of food with the maximum value at the minimum cost of time, money and labor.

Therefore, we claim for PROPERLY trained teachers of Domestic Science, a recognized place as science "specialists." In Domestic Art, in addition to the regular training for Public School work, the teacher must have a thorough knowledge of drawing, especially mechanical drawing and design; textiles and process of manufacture, together with their effect on social conditions; of business methods; historic costume, drafting, and a practical knowledge of every stitch required in the manufacture of clothing; designing of bows and trimmings, millinery and dressmaking. The educational value of sewing, when properly taught, is beyond question. While there are occasional differences of opinion concerning the application of manual training principles to Domestic Science—which some insist should be classed among the sciences—there are no two opinions concerning the place which Domestic Art should occupy in the educational world. It is manual training, or hand, eye and head study, pure and simple, and should be taught, properly graded, throughout the whole school course.

In closing a paper, which must of necessity only touch one phase of the question, may I urge upon you to consider this question in its relation to society—to consider the *influence* of the home and the *power of education*, when *applied* to this controlling, moral and social institution.

An authorized dictionary gives as a definition for education, "To qualify for the business duties of life, and to enlighten the understanding." Do we not find in this correlation of studies, in the *stimulating* influence of *applying knowledge* to the daily duties of life, a complete illustration of the modern idea of education, and with a direct bearing upon social and domestic life which cannot be overestimated?



## KINDERGARTEN DEPARTMENT.

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*THE BEGINNINGS OF MUSIC WITH CHILDREN.*

MARI RUEF HOFER, CHICAGO, ILL.

During the last decade the worker in education might well be likened to the person, who is suddenly called from the respectable though limited circumstances of ordinary life, to assume the responsibility of the affluent wealth of the millionaire. From the plain fare, and unadorned conditions of the three "Rs," the teacher found herself submerged in the munificence of Art, Science and Philosophy, with the freedom of thinking, feeling and experimenting freely along all lines.

With the freedom of the new methods, what luxuriate browsings in hitherto unexplored fields, what enlargement and research were permissible to the common teacher. Self-activity, creativity, self-expression, spontaneity, and the play spirit—what terms, what conditions to address to the human soul. What vistas of joy and growth reveal themselves in these words; also what problems of individual reconstruction to be met—what bridges of inefficiencies and despair to be crossed before these things could be realized.

In the first abandonment to the sense of freedom, beauty and fulness of power, lay the education of the teacher from the old to the new. In her embarrassment of riches it has been difficult for the Kindergartner, as for other teachers, to always act with discrimination in the use of her resources, to comprehend the situation in moderation and with good judgment. If the first step was the conquering of herself and her material, the second certainly is to learn to put things in their right places.

In music the feeling has long been gaining ground that we have been dealing with our opportunities, not always to the best advantage. In our eagerness to give the child the best of everything we are apt to plunge him into the full experience, without permitting him the benefit of natural growth and development. The larger formulated idea of music must be as abstract and

un-understandable and confusing to the child as similar large experiences along other lines, when a simple concrete treatment would be the next step in development. While music can be appreciated and understood—certainly felt as an influence—without analysis, is not the forcing of music embodying adult experiences unprofitable, and in the case of the Kindergarten child positively harmful?

The beginning work in music with young children, as in other studies, should have less to do with direct training in music proper, than with the accessories and environment which will help a child to become musical. In this early period all is grist which comes to his mill; all sound, all motion are music to him. He claims the whole earth and the heavens above for his themes—the sun, the moon, the stars, the earth, the air, and all that in them is, furnish him with the musical occasion. He hears, feels, imbibes and appreciates the materials of music in a thousand forms. The world is his instrument, and melodies, rhythms and harmonies come to him from nature at first hand.

The work of education is to turn nature and natural conditions into the channels of life. A concrete tone experience should precede general musical training. This can be gained naturally and unconsciously in the poorest neighborhood. A little thoughtful work on the part of the teacher, in the Kindergarten and First Primary and later in connection with the science work of the grades, would be sufficient to equip the most backward child in a hearing experience, with the power to discriminate and reproduce all sounds through imitation and association. This is the significance of the early imitative or bow-wow period, which through the ignorance and indolence of parents and nurses, is unutilized, and the sense remains dulled and indiscriminating.

As the child looks forth from his undefined wonder-world, it takes but the magic of a "see the flower," or "hear the bird," to arouse and focus baby interest into active appreciation. From listening to individual sounds we pass rapidly to association of sounds with object, discrimination between sounds, comparing and contrasting and locating sounds. Indeed, a very simple but logical programme can be carried through the year, based upon the occasion of every-day development, with the result to greatly quicken and develop the hearing sense. Nor need we go far from home in order to effect this. A teacher, hearing some of these suggestions, anxiously asked, "Where and how shall I get the apparatus?" But sit still and listen, whether in the city or country, house or street,

in five minutes you will hear more sounds than you can analyze in an hour. And all to the end of ear training, and undoubtedly leading to the establishing of an auditory imagery, which must be effective in assisting in the later appreciating of music, and arousing the musical consciousness, the stepping-stone to the creative imagery which is the equipment of the one gifted in music. To-day talent is largely bent of mind and trained resource, and while the new education hardly guarantees to manufacture genius, it does undertake to free the powers which may lead to it. As a tree cannot blossom without an overfulness of life, so a child cannot function song without a fulness of experience and an overflow of the mind and soul.

In regard to voice, how fully we are becoming aware that it is the mind and not the body that sings. The utterance of the individual is as inevitable in kind and quality as the very identity of the individual himself. The color and character of the human voice is not a matter of chance or accident, but the result of law and proportion, unmistakably speaking out the story of its possessor. In the voice are involved not only the proportions, the fibre, the timbre of the individual; but race, nationality, environment, local influences, temperament, habit, etc. Here we find the old principle of the vacuum applying itself. Unoccupied space, whether in earth or brain tracts, has a fatal way of growing peculiar crops of its own. Inability to sing is not always due to a fundamental lack. Following a sort of "House that Jack Built" method we might say that lack of voice is due to lack of response on the part of an unused member, due to a lack of desire to sing, due to indifference of mind, due to cares and worries, worldliness, business absorption, etc. In this way most of the cases of unmusicalness and lack of vocal ability can be traced to spiritual and æsthetic indifference. Highly intellectualized habits also have a tendency to absorb the energies which go toward the more vital function of song.

Many of these sins of omission and commission reflect themselves upon the children. The delicate sense-adjustment of the child so easily becomes jangled and tuneless through neglect, while with careful sympathetic treatment it may be made to vibrate continually sweeter and truer. In the case of the monotone and so-called unmusicalness, "much can be done if we catch the Scotchman young enough."

The physiological subtleties of "why people do not sing," have

not yet been sufficiently exploited to suggest cure-alls for musical inefficiencies. Upon investigation it must be confessed that ignorance and indifference seem more potent factors than either heredity or disease. The fact that with the monotone child the desire to sing is stronger than that of the normal child, shows that voice is more than a physical fact. The Kindergarten has too often witnessed the miracle of the deaf being made to hear, and the dumb to sing, to question the efficacy of early musical influence to open the avenue of song to the child. The interesting process of "uncovering" voices is going on daily in the best vocal studios of the country, where most indifferent material is often converted into rare quality and power. What more interesting conditions can present themselves than the vocal individualities of her little flock? What a variety of coloring, as in complexion, faces and hair. The careful study of their vocal needs and limitations would inspire many happy experiments, and the adjustment of song and verse to their capacity.

While children understand melody almost instinctively, the word stands to them for the meaning of the thing, and is the natural bridge to conscious knowledge. Froebel gives us valuable thoughts in connection with the early teaching of language in regard to the use of the "word" as the medium between the thought and the thing. The proper expression of the word through sound would be a valuable aid in vocal development. The careless use of language in regard to vowel quality, and later the perfunctory use of words in common speech—the purely mental use of language, with no regard to the expression side, involving no color or quality—results in a paucity of tone and individuality in the voice which must go a long way in limiting the vocal power. For this reason, song as speech, and speech as song should be thoroughly interblended during the Kindergarten period. Songs should be musical conversations, largely of first person and present tense. These should naturally lead to musical conversations in "good morning" and all kinds of simple phrases sung—bits of talk and song made up by the children themselves, and sung without the piano. From this the teacher can lead up skilfully to difficulties of pitch in relation to individual defects. A careful study of relation of voice to pitch in the natural expression of idea must be made by the teacher to do intelligent work.

Out of this grows naturally and logically the next step—the creative effort on the part of the child, which, in the yet unco-ordinated

condition of education, the Kindergarten is not always permitted to see. A little girl, just stepping out of the Kindergarten ranks, proceeding according to the law of inner development, is busy picking out the tunes of the songs she has learned from the piano. "Peter Piper" also gives her great satisfaction. One day she originated a new tune of her own, as she joyfully announced to her mother. "But," she anxiously inquired, "Mamma, what does it say?" The mother suggested that her song might be about the birds. She soon returned, and brought these rather remarkable lines:

"Hark ! the bluebird now is singing,  
And the apple-tree is swinging."

It is needless to say that her mind was not a blank sheet of white paper to begin with. But here was clearly the transition from musical idea into tune, and thought into words, and the two happily wedded as song. We may fairly forecast that the formal and largely imitative use of song will decrease as we enlarge our opportunities here.

The soul of the child lives in motion, as the mind of the adult does in thought. In rhythm, again, we are asserting the broader freedom. The old and more formal and technical plays are dividing honors with freer rhythmic expression, which represents the more impulsive and spontaneous activity of the child. Here the vital and physical energies are more fully utilized, and, in turn, supply vigor and grasp to the thought side of the work. Even children in the Kindergarten may suffer from passive thinking, and enter the game not fully awake. Through simple, rhythmic activities we can help lay the foundation experience in feeling, which will enrich the larger experience of the game. One teacher says: "I find in working out the incidental experiences more fully in free, rhythmic play, the children are better prepared for vital and spontaneous participation in the later dramatization of the games, they think out their own activities better and are more creative, having greater freedom and control." By working constructively, covering all with the spirit of genuine play, avoiding sensational music and dance forms, the new element of rhythm becomes a valuable adjunct of child training.

In the Kindergarten one is especially impressed with the discouragingly slow process of formal music assimilation on the part of the children. It often takes weeks and months for a song seemingly childlike and suitable to reach the point of reproduction.



A song is logical and sustained, and involves many co-ordinations—simultaneous control and functioning of body and mind. On the other hand, the work of impression should continue. Can not the piano find its right use here, instead of continually usurping the place of independent song on the part of the children? Here we have been handicapped by the lack of organized material, taste, judgment, ability to play. The delight of the children in having their concrete experiences told in another kind of a story by the piano, in tone and rhythm, this alone will compensate for any effort spent in this direction. His ear mind can appreciate and understand long before he is able to produce. A great step in the training of the teacher must be taken here in order to do justice to this need.

In review, the child to whom everything “sings,” from the whirl of the passing street car to the crackling of the flames in the fireplace, the mysteries of interpretation will never need to be especially explained. Further, the child who has concretely experienced and represented, observed and appropriated the life qualities of the things about him, will easily recognize their tonal and rhythmic meanings. Music becomes a language to him, another way of telling things, a means of communication. From the simple and concrete we can pass to the higher and complex in music culture, gradually leading the mind into the realms of art appreciation and higher spiritual unfoldment.

## TRAINING DEPARTMENT.

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### *THE HOME AND THE SCHOOL.*

F. F. MACPHERSON, B.A., HAMILTON.

The home is the centre of national life. It is at once the *root* and the *fruit* of national life. All that is good in the nation must come from the home, if the ideal of the home is true; whereas, if the ideal of the home is low or almost entirely wanting, the home is quick to feel the degrading influences of the evil tendencies of society.

The faults of the home act on the school, and the faults of the school react on the home. It is useless to search out the faults and defects of our civilization and lay the blame of them all on the school or school system, or to suggest reforms in our education to cure all the evils around us. Prof. Mahaffy remarks that schemes for the reform of society by systematic training of youth are always a failure, and the reason is not far to seek.

Many suggestions have been made lately in the direction of reform, always with the expectation of the most favorable results. Prof. Robertson thinks that the doing away with centralization will work wonders; Robert Barr will civilize Ontario teachers by having them subscribe for the *Canadian Magazine* and read short stories; others will redeem the people by limiting examinations to few *essential* subjects. These reforms are all suggested by defects in our civilization, and teachers recognize the fact even sooner than the parents. But I make bold to say that the people will always get the kind of training in schools that they ask for; if, therefore, there is anything wrong, the reason must be looked for largely outside the system of education, bad as that system may be in the eyes of some; it must be looked for in the home. Any system will do, speaking generally, if the people want education. No system, however perfect, will educate a people that has no desire for the right education. Mahaffy points out that the reason for the high standard of culture among the Greeks was the

high ideal of education among the people themselves. A Scotch ploughboy saves his £20, and decides to get £20 of culture in Greek and Latin, even if he has to return to the plough. The Scotch and the Germans are remarkable for their high standard of education, and one sees how the parents sacrifice everything to secure a good education for their children.

There are certain elements in modern civilization which evidence a low ideal in the home: First, the high pressure of commercialism and consequent lack of time for that meditation which is a mark of all real advance. We have no leisure to get acquainted with ourselves and our proper aim in living. Wordsworth in his "Inner Vision"; Whittier in his hymn beginning—

" Dear Lord and Father of mankind,  
 Forgive our feverish ways,  
 Reclothe us in our rightful mind,  
 In purer lives our service find,  
 In deeper reverence, praise ; "

Lowell in his "Incident in a Railroad Car"—all see the canker of life in the rush and hurry which takes men away from themselves. Hence, second, learning is got now for a livelihood, not for culture or training; and, third, our receptivity is killing our creative power. With so many things to learn to put one abreast of the leaders in his chosen walk of life, it is fearful to think to what a low *ebb-creation* will come in future generations. Fourth, materialism or blank indifference, resting upon the science of to-day, which is mistaken almost entirely morphological instead of teleological, robs men of the strongest motive for effort in the line of noble purpose.

" What the world teaches, profits to the world ;  
 What the soul teaches, profits to the soul.  
 Which then first stands erect with Godward face  
 When she let's fall her pack of withered facts,  
 The gleanings of the outward eye and ear,  
 And looks and listens with her finer sense ;  
 Nor Truth nor Knowledge cometh from without."

What, then, may be proposed as an ideal which, possessing the home and the nation, will revolutionize our education? Just one thing need be mentioned: to have a right idea of the relative value of the things which concern our lives; or, in other words, to have a right idea of our purpose in living. Unless the life of the whole nation is directed to some worthy purpose, there will continue to be the same emptiness and cause for complaint. What is the

proper object? The Hedonistic philosophers say *Happiness*; the Idealists say *Blessedness*, *Self-realization*, "the idea of a self as in a more developed state than that in which it now exists" (Watson);

"To act that each to-morrow  
Finds us farther than to-day."

Join to this two accompaniments: First, a belief in immortality, which Longfellow in his "Psalm of Life," and Milton in "Lycidas," deem necessary as an incentive to arduous toil; second, a desire for progress issuing in love of work. Political Economists base progress on this desire for progress and on the love of gain, but the second is what blights human life and robs the first of its glory.

How is this to be brought about? Certainly by no petty reforms or changes, but by the individual action of noble men. "If the salt have lost its savor, wherewith shall it be salted?"

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## INSPECTORS' DEPARTMENT.

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*OUR TRAINING SCHOOLS AND SUGGESTED  
IMPROVEMENTS.*

WILLIAM JOHNSTON, M.A., LL.B., ATHENS.

The object of training schools is to promote scientific education. The mind is so constituted that there is a natural, and also unnatural, way of acquiring knowledge. Thus, from the known to the unknown is Nature's method of instruction; from the unknown to the unknown is not infrequently man's method. Again, in nature everywhere we find progression from an organism consisting of few parts to one consisting of a greater number. The organism of the fully developed human being is vastly more complicated than that of the fetus from which it sprung. The convolutions of the brain of a highly educated man or woman are many times more numerous than those of the most intelligent ape. The athlete lifts a thousand pounds after lifting lighter weights for many weeks or months.

Observations such as the foregoing have suggested rational methods of imparting knowledge and cultivating thought—psychological principles they are now styled—the distinctive feature of which is that by the use of these methods education becomes a growth of mind and body combined, and the teacher a farmer of the intellectual side of humanity—a contributor to the great granary of spiritual forces which John Caird so aptly describes as “corporate immortality.”

More than fifty years ago Rosenkranz, in his “Philosophy of Education,” pleaded earnestly for the establishment of training schools for teachers. Prior to his time John Locke, Pestalozzi and Froebel had labored faithfully in the same field, and the success which crowned the efforts of Rosenkranz was due, in a great measure, to the work done by his illustrious predecessors.

Theoretically, our training schools may be looked upon as perfect; practically, they are, doubtless, susceptible of many improvements.



The kindergarten training school instructs the student in the best methods of beginning education. This "children's garden" is school-room and nursery combined. Observation and invention are especially trained. But observation is confined almost exclusively to art; observation of nature receives comparatively little attention, while invention frequently degenerates into imitation. This school should be a "garden" in act as well as in word. The study of plant and flower, of stream and field, of bird and beast, should be the play of the child-pupil of this school. The inventive faculty is one of the noblest of the human mind. It therefore should receive special attention on the threshold of education. The power to observe closely and accurately is of great practice and utility, hence the kindergarten teacher should make the cultivation of this faculty her constant aim.

It is to be regretted that the kindergarten is found only in our cities and a few of our towns, for it is evidently capable of doing much good as a directing power to the young mind. Here a suggested improvement is the establishment of a kindergarten school in connection with every graded school. The objection to the establishment of such schools would be the cost, but to this objection it is submitted that if elementary education cost more, secondary or higher education would cost less, and the net result would be a better system of education in its entirety at a cost not materially greater than the present expenditure.

And now what is to be said regarding County Model Schools? They are the schools which provide for the professional training of about two-thirds of our Public School teachers. They should be efficient; if they are not, a serious charge of wrong-doing must be preferred against our educational authorities. It is scarcely necessary for me to say that I never received the advantages of Model School training. I had taught ten years at least before County Model Schools were established. When the question came before the trustees the leading argument in favor of their establishment was that they would give cheap and efficient teachers; before teachers it was urged that their establishment would create an immediate demand for first-class teachers, and, therefore, the wages of highly qualified teachers would advance. Both predictions were fulfilled. It is well known that before the establishment of County Model Schools there were few Public School teachers who received \$500 a year, and that since their establishment many have received nearly twice that amount. And it is also true that the

County Model Schools have greatly increased the efficiency of the teaching done in the Public Schools. It requires no argument to prove that the teacher who has been trained to teach, will do better work than the teacher who has received no such training. It is simply nonsense to say that County Model Schools are a failure, but it is good sound sense to say that possibly our Model Schools are very much in need of improvement; that the conditions under which the County Model Schools came into being nearly a quarter of a century ago, are not the conditions under which they exist to-day; that the educational requirements of the present are far in advance of the requirements of the past: that the increase of material prosperity everywhere calls for a more extended, a broader and deeper professional training than has been given in our County Model Schools in the past.

It is not my intention to belittle the training given in our County Model Schools. As far as time permitted the work has been thorough and efficient, but the time has never been sufficient. Model School students have always been driven over a course in three months, which should have occupied their attention for nine months. They have been regularly and systematically "crammed" in the worst sense of the word, and it follows inevitably that their books are cast away as soon as freedom is regained. They do not read books on psychology and kindred subjects after leaving the Model School, and they never will until sufficient time is given for mental assimilation. Hence, a suggested improvement here is, that the Model School session should be lengthened so as to extend over the whole, or nearly the whole, of the school year. The Model School teacher would then give his undivided attention to the instruction of the teachers-in-training, and the senior fourth class would be under the same teacher during the whole year. Under the present system a substitute is engaged for the principal's room during the Model School term, and it is my experience that the substitute's work is generally very unsatisfactory. So much is this the case that boards of trustees object to the Model School on the ground that it impairs the efficiency of the work done in the school as a whole, and especially in the highest room in the school.

A second suggested improvement is the closing of one-half or more of the Model Schools. The great number of second-class teachers renders a less number of third-class teachers very desirable, and the best means to reduce the number of third-class teachers seems to me a reduction of the number of County Model Schools.

The future County Model School should be a school having at least eight or ten rooms. This is necessary to give ample room for observation of teaching, and to lessen the labor of each of the Model School teachers as far as their labor with teachers-in-training is a part of their school work. In Model Schools having only five or six teachers, so much time is spent with the teachers-in-training that the pupils of the school necessarily suffer from the neglect occasioned by the absence of the teachers from their classes. By increasing the number of rooms this evil would be reduced if not fully remedied.

An increase of the legislative and county grants would be necessary if the proposed changes were made. If the minimum grant were raised to \$600, this grant would pay the salary of an additional teacher for the Model School master's room. If the grants were not increased it is doubtful if many boards of trustees could be prevailed upon to keep a Model School open for the training of teachers. As it is at the present time the Model School is looked upon as an injury to the school rather than a profitable acquisition. Perhaps the proposed changes would remove all just grounds of complaint.

But the time should come when County Model Schools will not be required; when third-class certificates will cease to be issued, and when Normal Schools and Training Colleges will be the only institutions where intending teachers will receive their professional training. Is it too much to hope that this improvement in our Training Schools is not far distant? If every teacher were required to attend the Normal School or the Normal College before beginning to teach, we would have a body of teachers far in advance of the present educators of Ontario. Perhaps some may question the truth of this statement, but I maintain it is true nevertheless, for the Normal School and Provincial Model School teachers are superior to the average County Model School teacher; and, besides, if there were no County Model Schools many who would attend a local school with the intention of teaching only a short time, would not attend a Normal School. Hence, the abolition of County Model Schools would give a class of teachers who would remain longer in the profession, and, therefore, they would do better work.

Passing from the County Model School, we must now look into the Provincial Normal School. I spent a year in the Toronto Normal School about twenty-two years ago. Speaking from per-

sonal acquaintance I have nothing but good to say of this ancient and honorable training school. And yet there was a time when the Toronto Normal School was very unpopular; when it was considered a mere waste of time to attend it. Looking back over the past—and it is said that “distance lends enchantment to the view”—we see clearly the cause of all our sorrows and all our dissatisfaction. It was simple ignorance. Many of us went to the Normal School with less education than would enable a student to squeeze through a pass junior matriculation into one of our universities; and after spending six months or a year under the instructions of Dr. Davies, Dr. Carlyle and Mr. Kirkland, we were expected to pass an examination in pure and applied Mathematics, in English History and Geography that would have floored many an honor graduate in Arts! Do you recollect the terrible papers given us in Statics, Hydrostatics and Dynamics, in Arithmetic, Algebra and Euclid away back in the seventies? The Normal School was simply expected to accomplish the impossible, and because it failed to do that it was pronounced incompetent. This great wrong was removed when the Normal Schools ceased to combine non-professional with professional training, and for many years they have “pursued the even tenor of their way, none daring to make them afraid.”

I think it would be an improvement to have the Normal School session lengthened so as to embrace the full college year. The session would then begin in October, and continue until the following May. This change would produce a superior class of teachers, and it would at the same time reduce the supply; and this last effect is desirable at the present time.

The Normal School session being lengthened students, should be admitted (on passing the required non-professional examinations) without attendance at a County Model School. If this were allowed, those who purposed teaching a short time would attend the County Model School; and this would eventually lead to the elimination of third-class teachers from the profession.

In relation to the Ontario Normal College I can say but little. It is yet a young institution. I have at the present time four teachers who received their professional training in it, and if I may estimate the character of the work done in the training college by the excellence of the teaching exhibited by these teachers, there can be no doubt that this first-class training school is doing thoroughly efficient work. The principal, Dr. McLellan,

is a man universally respected and beloved. During the eight years he inspected my work in the High School as a teacher of Mathematics, I ever found him in sympathy with the earnest teacher, scholarly in his examination of the school, and strictly impartial in his estimate of the respective merits of the various teachers over whom he exercised inspectoral supervision.

As a suggested improvement it is submitted that the Normal College should be placed in connection with Toronto University; that its principal should be a professor of the university; and that the instructors of the students should be members of the teaching staff of the university. The advantage of this change would be that the professional training of high-grade teachers would be given by university professors, and this would be a guarantee of instruction of superior excellence. The desideratum is a "Chair of Pedagogy" in the Provincial University.

In conclusion, permit me to repeat the improvements in our Training Schools which have been suggested in this paper:

1. An effort should be made to establish a Kindergarten in every graded school.

2. The County Model School session should be equal in length to the university year. The Model School master should give his undivided attention to the teachers-in-training. The number of Model Schools should be decreased by at least one-half, and those continued should be large schools having not less than eight or ten teachers. The government and municipal grants should be increased at least one hundred per cent. In a few years the remaining Model Schools should be closed; and in the meantime students should have the privilege to attend the Normal School without having previously attended the County Model School.

3. The Normal School session should be lengthened to one academic year.

4. The Normal College should be an integral part of Toronto University.



*COMPULSORY ATTENDANCE AND THE TRUANCY ACT.*

J. H. KNIGHT, P.S.I., LINDSAY.

A Free School Act implies not only that every child has a right to be educated, but also that every ratepayer has a right to know that every child in the municipality in which he pays taxes is educated.

The Truancy Act of 1891 has done much to improve the attendance of children in cities and towns, and possibly in incorporated villages. It provides for the appointment of truant officers in all urban municipalities, and wherever teachers, truant officers and magistrates do their duty, the attendance ought to be all that can be reasonably expected.

There is one case, however, in which the Act is weak and could easily be improved, and that is where the absence from school is the fault of the child and not of the parent or guardian; in fact, where the child actually plays truant. To fine or imprison the parent, when he has done all he can do, is not likely to accomplish the end in view. If the child were imprisoned two days for the first offence, two weeks for the second, and received a flogging for the third, very few scholars would stay away of their own accord. It might be better still if the flogging were administered for the first offence.

Whether our legislators supposed that it did not matter whether children attended school in rural sections or not, or whether they wished to see how the Act would work in urban municipalities, it is hard to tell. They provided that trustees of rural schools might appoint truant officers, that is, the appointment was optional. I know of two cases where such appointments were made, but no good came in either case.

The plan I propose for rural sections supposes that truant officers are not necessary. It also supposes that it is not necessary to notify parents to send their children to school.

The Truancy Act requires the assessor to make a list containing the name, age and residence of every child between the ages of 8 and 14 in the municipality, and the name and residence of each child's parent or guardian, and return the said book to the clerk of the municipality with the assessment roll.

Let the clerk make a copy of the list, dividing the names according to the sections in which the children reside, and furnish the copy to each secretary-treasurer.

Immediately after the 30th day of June, let the secretary-treasurer, with the assistance of the teacher, compare this list with the register. The assessor's list might contain the names of children who had not attended school during the last twelve months. For each such child a fine of \$10 should be entered against the parent or guardian, and for every child who had attended less than 150 days, a fine of five cents for every day the child had been absent from school, should be entered against the parent or guardian.

The secretary should notify each party concerned that the fines entered against him would be collected with, and in addition to, all other taxes for which he was liable, unless good cause was shown that the said fine should not be imposed.

There should be two appeals, first to the trustees, and second to the county judge.

The trustees should hold a public meeting, the time of day to depend on the number of cases. The trustees should have the power to accept the reasons given by parents, and remit the fine; provided that any two ratepayers might insist that a case be referred to the county judge.

I should be in favor of accepting the certificate of any medical practitioner that a child was too delicate to attend school. But it might be safer to provide that a majority of the trustees, or any two ratepayers, might require two other doctors to examine a child, at the expense of the section, the opinion of a majority of the doctors to be final.

Whatever applied to physicians and ordinary diseases would apply to opticians and defects of the eyesight. \*

As already hinted, the secretary would return to the clerk the names of parents or guardians, and the fines that had not been remitted by the trustees or the county judge. The clerk would place the amounts on the collector's roll to be collected with the other taxes.

As only a few weeks would intervene between the close of the school term and the making of the collector's roll, the work would require to be done with as little delay as possible.

The fines imposed and collected should be paid to the trustees of the same section, and not into the general fund of the municipality.

The trustees should be required to prepare a list containing the names of all children in the section between the ages of 8 and 14, who had attended less than 150 days in the year ending June 30th, together with the fines entered, and how disposed of, and this should be read at the annual meeting, and form part of the trustees' annual report.

Any trustee or trustees neglecting to perform his or their part with respect to compulsory attendance, should be liable to the penalties provided for in sections 101 and 102 of the School Act. And any secretary-treasurer, he not being a trustee, should be liable to the same penalties for neglect of duty as are provided for in the case of trustees.

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*CHILDREN'S AID SOCIETIES.*

J. J. KELSO, TORONTO.

Mr. J. J. Kelso gave an address on "Children's Aid Societies," showing the importance of the work carried on by these organizations. There were many children, he said, scattered throughout the country who received no education, and whose home-life was thoroughly bad. It was from such homes as these that the criminal and pauper classes were recruited, and he mentioned a number of striking instances that had come to his attention where children who had grown up in ignorance and vice were now practically beyond reclamation, and were costing the country every year hundreds of dollars for their maintenance, not to speak of the depredations committed. One-third of the revenue of the country was now being spent on the criminal and dependent classes, and it was quite clear, from the cases mentioned by him, that many children, if taken hold of at the right time, could be saved from a worthless if not a criminal career. He urged the formation of a Children's Aid Society in every county, with an agent devoting all his attention to the work of caring for neglected and homeless children.

*HOW THE EFFICIENCY OF RURAL SCHOOL BOARDS MAY  
BE INCREASED.*

REV. W. H. G. COLLES, I.P.S., CHATHAM.

When the Legislative mind conceived the idea of having a Board of Trustees in every rural school section, made provision for the election of trustees annually, and clothed them with absolute and unlimited powers in certain matters, it was for the purpose of having an official body that would fairly and fully give effect to such enactments as should be made for the organization, maintenance and development of the schools, and who, during the time of office, would be the guardians and promoters of the best educational interests of the children—a corporate body, armed with plenary powers, to champion the rights and interests of the school as against every opposing interest. Legislation as to the appointment of rural school trustees here rests, as having placed the care of the educational interests of the people in the hands of the people, they having full power to elect from among themselves such persons as they deem fittest to be the promoters and guardians of the educational interests of their children. But the educational interests of the children of a school section are not in every sense the educational interests of the people of that section. It is all very well to tell a man that the money he pays towards the school is saved from the support of a jail: While they may not be able to refute this theory, many persons would choose to keep their money and run chances as to the jail, to let those pay for the school who require it, and to stand clear of the cost themselves as having no direct interest in the matter. With regard to the educational interests of many school sections, the community is thus very sharply divided. We find two very distinct classes, namely, those who have children attending the school and those who have not; and while the former have a direct interest in maintaining a good school, the tendency of the latter, as a class, is to spend as little as possible on an institution that is being maintained for some one else's benefit. Leaving the educational interests of the people in the hands of the people is, therefore, too often, leaving the educational interests of the children in the hands of a community of whom the majority regard it as a needless or an unjust expense;



and those who should be as the ideal trustees of legislators are in such case chosen from the wrong class; elected not to maintain and guard the best interests of the school, but elected to keep the tax rate as low as possible, by voting down every measure that would increase the expenses of the school, no matter how essential it might be to its best interests. It is not intended to make this a sweeping charge against all rural school boards, but it is a condition that does exist—that too often exists—and it is a condition that should not be possible in any case. But my brother inspectors know that such instances are too numerous, and that such a condition tends to paralyze every effort and every provision for the advancement of the school.

This may at first sight appear to be an unavoidable condition inherent in a wholesome democratic system that is otherwise good; that whatever such objections may be made to the system and constitution of rural school boards, the system generally is a good one, and that though it may have some objectionable features, it is the best that is within our reach. It is my purpose to point out that our system is not the best within our reach, and to suggest a practicable way to improve it. It may be true that all who are taxed to support a school should have votes as to its management, though I do not admit this; but granting it to be so, for the sake of argument, it may seem only just that all school supporters should have equal rights as to franchise, and be equally eligible for election as school trustees, though some have no direct interest in keeping up the school. We could not ask for legislation to debar from election as trustees that class of persons who have no personal interest in the efficiency of the school, and yet it is apparent that in a section where this element is the more numerous or the more active, the majority of the trustees may be elected to carry out a policy of pure economy in school matters, instead of such a policy as would best serve to make the school prosperous and efficient; elected, in plain English, to run the school with the very lowest possible cost that the law will allow. However good our system may be, it is also a fact that the annual meetings are, in many sections, very poorly attended; often from three to six persons constitute the whole representation, and it sometimes happens that A and B elect C, perhaps the most unfit person in the whole community, as school trustee, merely as a practical joke; and the joke is on the school for the next three years, accordingly. It certainly must be admitted that with our present system condi-

tions may be reached, and too often are, that were never contemplated when the office of trustee was first thought of—conditions as to the composition of the Board of Trustees that are directly antagonistic to the interest of the school. I may be allowed here to quote from one or two communications made to me by parents who claim to be suffering from just such a condition, so that I may emphasize this point. In a letter to me, dated January 10th, 1900, the writer says: "Almost every person that has children attending school in this section is dissatisfied with the standing of our school; but the majority have no children attending, therefore they seem to have no interest at stake only dollars and cents. Now, as rate-payers, and also interested in the education of our children, we would like to know what steps can be taken to raise the standard of our school." The same writer, in a letter dated 18th January, says: "The trouble is just here; this school has been run by a gang that has been fighting for a cheap school, and we think it has been going that way long enough. Those of us who have children going to school here think that we have a right to ask for a better teacher than we have had in the past." Another unfortunate victim of present conditions, in a letter dated February 5th, 1900, writing of the affairs in another section, says: "The trustees, not including myself, have not a direct interest in the school having no children attending; they have not a child or a grandchild. The majority of the ratepayers have no children of school age. The trustees were elected to run as cheap a school as possible, irrespective of teacher. I consider Mr. L—— is not a fit person to be trustee; he has neither tact nor judgment, with no education; he would not know his name if he were to see it written in large letters on the wall. I think there should be a law to prohibit such men from running for any such responsible positions. Mr. M——, the other trustee, is an old bachelor, and has no interest whatever, only as a ratepayer." The above was in support of his appeal to me to help him to get a better teacher in the school. I may add that I entirely sympathize with both these writers, and I know that their statements are correct. Again, most people know, as my fellow-inspectors certainly do, that the efficiency of the school depends, more than upon anything else, upon the efficiency of the teacher. The teacher is the best part of every school. Good teacher, good school, and *vice versa*. The trustees certainly can help the good teacher to make the good school a better school, but the inefficient teacher can stand between the ideal School Board

and the progress of the pupils, like an iceberg in the early spring. Persons of good natural ability and aptitude are found in the ranks of the teachers as well as those not so well endowed, but who seem to slip through the educational sifter that should separate the bad from the good, who unfortunately pass the educational safeguards intended to debar such from entering the profession. But while persons of both kinds enter the profession, the better material are the first to leave it, though their greater success should encourage them to continue longer than the others. This fact needs no proof. I speak to those who know it as well as I do. We do not retain as teachers in rural schools the better talent that enters the profession.

Let me ask what inducements are lacking. Do such teachers receive even moderately liberal wages? Is the situation of even an *excellent* teacher secure from one year to another in a rural school? What is the reason that so few "Teachers' Residences," for the erection of which the law provides, are being built in rural sections? How well we know that if one trustee turn against the teacher in a rural school, he is no longer sure of his situation for another year. What man or what woman of spirit would desire to continue in the profession under these circumstances? It is true that salaries have not been satisfactory, but give the rural school teacher fair play, by making his position as permanent as it would be in a town school, and on his merits he will do much to determine the matter of salary. For the purpose of retaining the better element in the teaching profession, by paying better salaries and insuring fair treatment, we need some change in the constitution of the rural school boards. The same difficulties are not experienced in towns and villages. Why? Herein lies the clue to the change that I would propose. The school board in every town and village consists of at least *six* trustees, while there are but *three* trustees on the rural school board. In the village, *four* of the six trustees must vote against the teacher to remove him from his position, whereas in a rural school he will not sleep soundly if *one* trustee is displeased with him. For this and for other and stronger reasons, which I shall explain later on, I propose that *two trustees be elected annually*, in each rural section, *instead of one*; this would make the rural school board to consist of *six trustees*, where each member holds office for three years, or *four trustees*, if each serve for two years. In the latter case it would require three trustees out of the four to pass a resolution unfavorable to the

teacher. Where only one trustee is to be elected you cannot exclude those ratepayers whose only interest is to keep down expenses, and who too often are elected to carry out that policy. For obvious reasons it would be difficult to get legislation to that effect, but if the Act provided for the election of *two* trustees annually, with the provision also that one of the two must be a ratepayer having one or more children attending the school, both classes would then have equal rights, the interested element would be sure of representation upon the board, we would have an immense safeguard to the efficiency of the school, and the larger number of members upon the board would insure the teacher against the unreasonable prejudice of any one member of a school board.

Not that I would condemn universally the school boards now elected: the trustees on many such boards are capable and liberal-minded, and do almost all for the school that could and should be done, and one has often the pleasure of complimenting such men upon their public spirit; but even where such are found have they not to encounter often at the annual school meeting a storm of adverse criticism because they had the fence repaired, a woodshed built, or because the salary of the deserving teacher was raised from \$225 to \$237.50? Often such trustees, though personally in favor of maintaining a good school, are deterred by fear of adverse criticism from carrying out such measures as they otherwise would. They need moral support; the very fact of a man being in office as school trustee always inclines him to do more for the school than he otherwise would, so that if rural school boards were composed of six members, as in villages, the wider sympathy and the moral support of numbers would sustain a much more liberal policy towards the schools, both as to equipment and as to teachers' salaries. Some one may here object that the average salary in rural schools is higher than that in town schools. It will be noticed, however, that the salaries of principals in towns and villages are higher than the salaries of principals in rural schools, and the same holds with regard to the salaries of assistant teachers.

But by far the greatest advantage of having two trustees elected annually instead of one, is that provision could then be made to have at least one of these two chosen from among those who have a direct interest in the school, as being parents having each one or more children actually attending that school. This would insure a board of six persons, of whom at least three have a direct interest in having a good school, and we may reasonably expect that



such a board would be more likely to adopt a fairly liberal policy towards the school. Even though such persons were imbued with very strict economical tendencies, yet since it is a personal benefit to each of them to have the school efficient, they would be more easily persuaded to carry out in letter and in spirit the departmental regulations for the proper conduct of the schools.

Recently the franchise in rural sections was almost doubled, by extending it to farmers' sons, who also are eligible for the office of school trustee; but while this element not directly interested in the welfare of the schools, has been added to the electorate, there has been no action taken, no provision made, to preserve the interests of the children against the possible effect of this legislation. In view of the fact that the number of enfranchised persons has thus been increased, it would not seem unreasonable that the representation of these people should be proportionately increased, and in order to check the increasing frequency of electing boards of trustees who have no direct interest in the schools, the provision above indicated should be made.

It is easy for some one to cry out against "tinkering the regulations." We propose no tinkering whatever, but rather to avoid it we want a new kettle throughout, and upon a larger and more liberal pattern. Nor need we be told that there can be no alteration in the Act until A.D. 1901. That is not a good reason for dropping the matter out of sight in the meantime. Let this matter be carefully thought over, and I am convinced that in the near future it will commend itself to the country. Measures that would be of unquestioned advantage to the schools, must often be abandoned because of the expenditure that would be involved, or because they would militate against the popularity of a government; but the enlargement of the rural school boards as here proposed would not cost the country one cent, nor should a measure be unpopular that would extend the honor and the privileges of office to a greater number of persons. I doubt that a government would care to undertake to *reduce* the number of members from six to three, because it would be infringing upon the privileges of the people. No doubt some objections may be found against the plan, but none fatal to it, or equal in weight to the many advantages in its favor. Some may say that it is hard enough to get one man to accept office yearly, and that therefore it would be difficult to get two to act. Nevertheless, we find people quite unwilling to relinquish the office to "township boards," which goes to prove that the objec-



tions to serving on the board are more loud than sincere, and it seems to me that the proposed change would tend rather to minimize any such difficulty, because a man who might shrink from the unsheltered responsibility upon a board of three would not feel the same reluctance to acting upon a board of six. The method of making such a change in the law would be very simple: The word six should be inserted instead of the word three in subsec. 2 of sec. 9 of the Act. Also, at the next ensuing election of trustees three additional trustees should be elected in the manner provided in subsec. 6 of sec. 11 of the Act, the first to hold office for three years, the second for two years, and the third for one year. Providing always that the persons proposed for election be chosen with a view to having at least three of the members of the board elected from among parents having one or more children attending the school. Possibly some one will think of some evil that the proposed change would not remedy. No doubt there are such. This change is not proposed as a panacea, however, but as one that would beget a new and increased interest in school matters in each section, and that would give the school trustees a greater amount of public sympathy to fortify them against adverse criticism. It would render the position of the efficient teacher more secure, as it now is in villages and towns, where larger boards are elected, as here proposed, and thus tend to retain the better element in the profession, and it would be an absolute safeguard against any rural school board being composed solely of persons whose only interest is to reduce the expenditure for school purposes in every possible way.

I would therefore have the Act amended so that two trustees be elected annually, at least one of whom should be a parent having one or more children attending the school, such trustees to serve for three years if it be deemed advisable to have six members upon the board, or to serve for two years if a board of four be considered better.

*PROBABLE FEATURES OF TWENTIETH CENTURY  
EDUCATION.*

W. F. CHAPMAN, P.S.I., TORONTO.

It is not with any thought of attempting to play the role of a prophet that I purpose directing your thoughts for a short time to some of the probable features of twentieth century education; neither do I desire to cast any reflection on the educational work of the past. The last half of the nineteenth century, and more especially the last quarter of it, will ever be noted as an age of marvellous progress along many lines, including educational, and we are going into the twentieth century with an impetus derived from the wonderful inventions in scientific discoveries that have marked the last decade of the nineteenth century that should prompt us to achieve greater results than we have in the past.

It may, however, be considered a fairly debatable question whether education, with all that the term means, has kept fully abreast of the times. The best educationists will always be rather conservative than otherwise, and properly so, inasmuch as experimenting along mental lines must ever be more costly than along financial or scientific. Every new thing is not necessarily a good thing, and we do well, as those entrusted with the education of the young, in judiciously and persistently resisting fads, but we must ever be open to receive all suggestions, and by careful thought select the wheat from the chaff, and adopt that which is clearly of great value.

Our conception as to what constitutes true education is ever expanding, and the definition of yesterday seems somewhat faulty to-day, and gives way to a more comprehensive one to-morrow. Note some of these definitions: "Education is the generation of power," Pestalozzi. "Education is the harmonious growth of body, mind, and soul," Froebel. "Education is not the preparation for life, it is life," Dr. John Dewey. And the German definition, "Education is the realization of possibilities."

We have in any one of these definitions ponderous thoughts worthy of our profoundest consideration. As we grasp the great truth, that education is life, or harmonious growth (which implies

life) of the physical, mental and spiritual, we will be enabled to discuss intelligently what must ever constitute the essentials of the truest education. Too long have we limited and degraded education to the mere acquisition of knowledge, and little power has been developed along the line of expression, and especially self-expression. Too long has the pupil been made to be the type of a sponge—great power of absorption. We as inspectors should ever be in the van of progress as regards Public School work; our responsibilities are great: our privileges should be prized and well used.

What then are some of the features of Twentieth Century education?

1. Improvement of grounds, etc.
2. Improvement of building and equipment.
  - (a) Heating and ventilation.
  - (b) Lighting.
  - (c) Adjustable seats.
  - (d) Tinted walls and proper blackboards.
  - (e) Decoration, pictures, etc.
  - (f) More models and apparatus.
3. In cities larger play areas, with consequent attention to the importance of play and athletics.
4. Modification of curriculum of studies to insure :
  - (a) Greater benefits for the ninety-six per cent. of Public School pupils who do not go on to higher education.
  - (b) More practical studies.
  - (c) More of the experimental, or a wider application of truth.
  - (d) More training for life.
  - (e) A more symmetrical education, including intellectual, physical, moral.
5. Discipline. Will corporal punishment be abolished? I think not. Will it be lessened? Yes. It may be increased for criminals. The frequent use of the strap by any teacher is a certain sign of weak disciplinary power. The best teachers may be compelled to resort to its use occasionally, inasmuch as some natures seem lost to every sense except to that of pain as produced by something applied to the body. The discipline of the future will be much freer, pupils deciding more and more what is best. This will bring in a system of self-government, pupils having a part in framing all

laws and rules, and administering the same. This will create a feeling of responsibility, and will place all on their honor. The school will more and more be a type of the best form of government, where the child will be taught the true principles underlying the ideal form of government.

6. Promotions will probably be made more frequently. A pupil should be allowed to go forward to higher work just so soon as he shows fitness to do that work, and not be obliged to wait perhaps three or six months. This fitness will be decided chiefly on the weekly or monthly record of his work. The written examination, however, will not expire with the nineteenth century, but properly used, should be a factor in ascertaining a pupil's power and knowledge. Written examinations have been abused in the past; their importance has been magnified, and they have too frequently been the sole test applied. For this cause, together with the difficulty of having an examination above criticism as to difficulty and suitability of questions to ascertain a candidate's knowledge and power, length of paper, and care and judgment with which answers are read, so much injustice has been done to worthy candidates as to lead to the extreme denunciation of all written examinations. I believe, however, that the written examination, in a modified form, conducted wisely and justly, has an educational value, and must be an important factor in deciding the standing of students.

7. Pupils have not in the past had sufficient opportunity to develop individuality. When the restraint that weakens and unduly represses is removed, and pupils consider a teacher more as a big brother or sister, or loving parent, so that the school may take on some phases of the home, we get at the characteristic individuality. Latent talent or genius comes to the front, and a confidence is established between pupil and teacher which is the foundation on which to build the truest kind of education. This development of individuality, of selfhood, is much dwarfed by the effort made to have all act and speak alike. This undesirable uniformity is not reached, for it is sufficiently unnatural to make the attempt to reach it a certain failure.

8. Physical education. In the past mental education has received the greatest attention. In country schools the neglect of physical education is not so serious, as the choring, or home duties of the country boy and girl, supplies sufficient physical training. To-day, however, in our cities, there are few home duties, and unless the physical is developed systematically with the mental, there will be

no satisfactory results. 'Are not the majority of the best positions in our cities held by those who were once country boys? This country life may not in all cases produce a robust body, but it does give more will-power, more self-reliance, more perseverance, greater ease in adapting one's self to changed circumstances, and greater ability to discharge duty. This leads to the consideration of where city children may play. Most cities have insufficient park areas; those provided form fine breathing spaces where old people, children and their nurses may move at the regulation pace, but for athletic sports they are practically useless. If boys try to play on the streets, the policeman is after them, and properly so from the citizen's standpoint, as windows and boulevards suffer from such use of streets. The playgrounds in connection with the city schools are entirely too small for the usual games, and the greater portion of the small area is planking. To provide for the proper development of the physical in city children, either the present park areas must be largely given up to athletic sports, or, what is better, special areas provided. Who can estimate the change for the better that would accrue to city schools as regards both discipline and progress of studies if the pupils knew that with class-room work finished, all could repair to the ample play area, and, mingling with pupils from other schools, (one large play area for a certain group of schools) enjoy vigorous, healthful games? There would soon be such a saving in the cost of suppression of vice and in the administration of justice as to quickly reimburse the city for cost of parks.

In the future these places will be provided when cities are in their infancy, and land is cheap. To-day it may be necessary to atone for lack of foresight in the past by tearing down buildings, but it will be wise to do this rather than forego the great benefits that will flow from these play areas.

9. Manual training and domestic science. I believe in manual training. It is not only the training of the hand, but of the eye, of the judgment, the æsthetic taste, and the best emotional characteristics of the human nature.

It embraces freehand drawing.

It makes hands dexterous.

It teaches self-reliance, for is there not self-confidence when one experiences genuine satisfaction from doing something well?

It teaches systematic knowledge.

It leads to unity of thought and correlation of effort.



“Hand-train your head-worker, and head-train your hand-worker” is the way to secure the best development of each.

By manual training powers of observation are cultivated, dexterity of hand produced, a broader development obtained, and, what is of most importance, a realization by the individual of his power to do something as shown by the visible product of his own labor.

It is not necessary here to attempt any lengthy reply to objections raised against manual training. It has been successfully introduced and continued in large cities, and may be said to have passed the experimental stage. Manual training is not to produce skilled mechanics. It may not shorten the time of apprenticeship. It is to be in the schools for its educational value. As a disciplinary agent alone it is invaluable.

The girls have equal claim for domestic science. Fine needle-work may become a lost art, but plain sewing is always a requisite in the workman's home, and yet for the lack of this knowledge, his wages are going improperly in the purchase of ready-made garments.

The food question—what is the most nourishing and digestible to eat, and how should it be prepared to best conserve its nutriment—is of vital importance. In our city schools we have many children insufficiently and improperly fed, and we expect them to be as well behaved and as progressive in work as the well-nourished children. It is unfair, unreasonable, and unnatural to do so. Bad cooking is a fruitful source of family quarrels, deserted homes, drunkenness and disease.

To any one who perchance may declare that such instruction as pertains to sewing and cooking belongs to the home and is not properly a part of Public School work, my reply is twofold: (1) That education is that training which best fits one for the work of life, and therefore includes much more than what may be termed mere book knowledge; (2) the mothers in the majority of homes where the need to train the girls in sewing and cooking is greatest, inasmuch as these girls will become the wives of men with a moderate wage, have not the time, and in many cases not the ability to train their girls, and unless the State does something through the instrumentality of the schools, there must follow an inevitable weakening of the race.

Again I hear the oft-repeated cry of “no time.” Once more my reply is twofold: (1) What ought to be, must be, and will be; (2)

there will be greater progress in less time, when pupils have this change of occupation, and also the satisfying of natural desire than there is now. Is it not an indisputable fact that pupils rarely work at the speed of which they are capable, largely because the work is, through causes many, uninteresting?

10. Training in citizenship. The school should always aim to make good citizens.

"Citizenship, community life, ideal society under our national idea is the true end and aim of the common school."—*Col. Parker.*

"The duties of citizenship are quite as high and important as any which can engage our attention, and the educated men of the country should be the last to overlook and neglect them."—*McKinley.*

"The true test of civilization is not the census, nor the size of cities, nor the crops, but the kind of man this country turns out."—*Emerson.*

Training in citizenship will include :

- (a) A grasp of the principles of representative government, but much more than this, viz., duties to the home, to the community, to the Church, to the State.
- (b) An appreciation of the value of the franchise, and the using of it as a sacred trust.
- (c) The cultivation of a spirit of altruism, which is the opposite of that which is largely the foundation of all the vices, viz., selfishness.
- (d) A clear perception of the difference between liberty and license. "What is liberty without wisdom and without virtue? It is the greatest of all possible evils, for it is folly, vice and madness without tuition or restraint."—*Burke.* So many rights are claimed to-day in the name of freedom that the rights of others seem of little account, or many look at the rights of others through the large end of the telescope.
- (e) Right ideas regarding the use of pleasure. More and more are we developing into a race of pleasure-seekers. Who will say that the enjoyment of proper pleasure is wrong? The kind of pleasure, with right use and amount, is the problem concerning which the youth of to-day needs instruction. It is this constant desire to be amused that leads to a love of the sensational.

(f) Right use and value of money. This is a money-making age. Many are devoting all their time and talents to the accumulation of wealth. They are making it the aim of life. There is danger here; and yet, with this wealth, the possibilities of accomplishing much for humanity are great. The youth of the day needs sound instruction, so that money, should he be fortunate enough to accumulate it, may be his slave rather than have it enslave him. Fifty years ago there were only two millionaires in the United States. To-day New York alone has more than three thousand, and there are more than three times that number in the whole of the United States, some having scores of millions. The accumulation of vast fortunes may be a marked feature of the coming century. If so, how important that right views should prevail regarding the responsibility resting on one who meets with such financial prosperity. The case of Russell Sage, adding \$80,000 to his hundred millions on his birthday is a good illustration of how money makes money, and the case of John J. Ingalls, one of the brainiest men who ever sat in the United States Senate writing an article on his birthday through need of money, for which he got \$50, is an example of how little financial reward mental ability may receive. Rev. Mr. Sheldon is so fearful of weakening his influence for good should an impression prevail that he is seeking financial reward, that he refused the offer of a New York editor of \$15,000 to write for his paper; also of \$5,200 from the editor of a religious weekly to write one article a week during 1900; and finally refused an offer of \$150,000 for a series of lectures in England; but agrees to lecture in every city and town in England, provided there is no charge for admission.

(g) Patriotism. "Breathes there a man with soul so dead, who never to himself hath said, this is my own, my native land?" Naturally we love the land of our birth or the land of our adoption. This love, when real, means an interest in its welfare amounting to a

willingness to make sacrifices to promote the same. He serves his country best who first serves his community well, and this will grow out of a true love and reverence for the home. A man's sphere of usefulness enlarges as he proves fitness by fidelity to trust. This high estimate of duty to country will lead to appreciation of the franchise, and unhesitating condemnation of those who would sell it or traffic in it. Who will say that there is not some necessity for the education of the young along this line? Government by the people must have for its foundation the morality and general intelligence of the people. To secure a high standard of morality and intelligence is the mission of the public school. In every school we should have a picture of the Queen, the Union Jack, or several of them, the Dominion coat of arms and the Provincial coat of arms.

- (h) A proper conception of success and the elements of character that develop the truest and the best.

"The man is successful who is useful.

"The man is successful who does well what is nearest him, and seeks to improve himself to do it better.

"The man is successful who has an ideal and strives to reach it."

Success entails hard work. We must avoid so-called short-cuts to success. The compilation of the Encyclopædia of American Biography shows that the authors after most careful research found only 15,142, including the living, worthy of notice, and yet at least a hundred millions of men and women must have lived and died in the United States since the discovery of America.

When training in citizenship includes so much that is of great importance to the individual, family, community and State, should we not seriously ask, are the schools doing all they can to make good citizens, and is it not absolutely necessary that a place should be found without delay in the school programme for the subject of Civics?

10. Moral training will receive more attention in the future than in the past. Emerson said, "The foundation of culture is the moral sentiment;" and another writer says, "The highest education will be, must be, Christian in its spirit and conducted on Christian principles."

More and more the tendency of the home is to shift responsibility for this training on the Sunday School and day school. If so, the Sunday School with one hour a week is wholly inadequate to meet the necessity. If the day school teacher is by law *in loco parentis* why should not responsibility for moral training be accepted? I do not wish to imply that it has not been so accepted in a large measure, and I rejoice that the influence of the Public School teacher is exercised in this direction so fully, and yet I feel that something more is required.

Definite moral training need not include any particular creed. The teaching must not be sectarian in the least degree. The basis for such training must ever be the Ten Commandments and the Sermon on the Mount. Some hold the most effective moral training must ever be the incidental, and that it is involved in all the exercises of the school-room, and yet I would have it in the Course of Study. Such a course has already been engrafted in the Programme of Study of some cities, beginning in First Book classes with kindness and unselfishness, respect and reverence for parents, for the aged, and for those in authority, and so through the grades, industry, prudence, economy, charity, fidelity, street manners, church manners, etc., are discussed. This systematic treatment is sure to result in an elevated standard of morals.

Time will not permit of more than the mere statement that the schools of the twentieth century will establish pupils' libraries since good books are so cheap, and ex-pupils' associations as a bond between home and school, and a means of influencing pupils for good after they have left school; will emphasize music for its refining influence, and language work and drawing as a great means of self-expression; also nature study with its broad field of botany, biology, zoology, mineralogy, piscatology, etc., opening up so much of intense interest, training the powers of observation and reflection, and furnishing material for the best lessons in language and drawing; becoming a great aid in moral training inasmuch as the child that is in harmony with nature, beholding with ever-increasing wonder and admiration the beauty, order, symmetry and perfect adaptation of means to an end shown in Nature, soon learns



to reverence the God of Nature, the Creator of all things, who is worthy of the highest adoration, and to whose service our life and powers should be consecrated.

In conclusion, we rejoice that the close of the nineteenth century finds the foundations of our Public School system so well and truly laid, so strongly implanted in the affections of the people. It aims to place the children of rich and of poor on equality, and to enthrone as the presiding genius in every school-room a man or woman of scholarship, refinement and culture (and who can estimate the influence of a courteous, refined, Christian teacher?) It rests with those who may be privileged to work in the twentieth century, to build on this foundation such a superstructure as may be comely in its parts and well adapted to produce the best type of truest manhood and highest citizenship.

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*UNDUE ATTENTION TO ARITHMETIC IN OUR PUBLIC SCHOOLS.*

G. D. PLATT, B.A., PICTON.

The primary object of education is mental culture with a view to the proper formation of character. This culture has reference not only to the intellectual powers, but also to the sensibilities and the will. A secondary object is to promote the acquisition of such knowledge as may be of practical use in after life.

Only a part of education is obtained in the school-room, and in many cases the least valuable part. The teacher is merely a guide to assist the pupil whose true education depends mainly upon self-effort.

Given a wise teacher acquainted with the order of development of the mental faculties of children, what are the exercises to be employed in the school-room? Clearly those best adapted to the capacity of the pupil. A high authority says, "As a child learns not only rapidly, but with intense pleasure from the time of his birth to the time he starts to school, simply because the activities in which he engages are fitted to his state of development, so he will continue to learn rapidly with intense pleasure after he starts to school, if the work he is set to doing is adapted to his development." And another says, "If we supply the proper conditions, our pupils will as certainly learn as a train will move when the engineer turns on the steam." From the ages of six to ten years the powers of observation and memory are those chiefly exercised by the pupil, and the instruction should be almost wholly confined to objective work. This is the time for general object teaching, including the structure of familiar plants, animals, insects, etc., for writing, drawing, reading, spelling, composition, singing, geography, physiology and objective arithmetic.

Baldwin calls this "the golden period for storing the mind with ideas of things in land, sea and sky." He says: "The teacher does not realize how long it takes a child in its first years of school life to gain a clear perception of an object, a picture, or a figure." He says: "Arithmetic has little value in the cultivation of observation and memory—but these are the faculties most exercised by children. At this period the child easily learns to speak, read and

write. Leading him to find out and tell about the earth and animals and plants, develops memory, and this is a fitting time to ingrain good habits."

Sully says: "The young need to mingle with Nature and should be trained to observe hill and dale, stream and wave, and the forms and movements of plants and animals, which are the best exercise of the observing faculty."

Hon. G. W. Ross in his report on the German elementary schools, says: "Great attention is paid to elementary science in the form of observation lessons. The object of this study appears to be, (1) cultivation of the observing faculties; (2) assistance to a better understanding of other studies; (3) acquisition of facts as a basis for scientific study, and (4) development of a love of the beautiful in nature and training in ethics. The ethical training of the pupil is one of the distinct objects of the lessons in natural history."

On another page of the report I find this remark—"Geography, arithmetic and reading are well taught, but they cannot be said to receive relatively the same attention, or to be deemed of equal importance educationally, as the other subjects." And yet, Germany is the school-mistress of the world! How strange this must seem to the overworked and underpaid teachers of Ontario, who are compelled to wrestle about one-fourth of their time in school with this overestimated subject!

In English schools, according to the same report, considerable attention is given to elementary science while the requirements in arithmetic are much less than with us.

Professor Henslow, of Cambridge, England, was the means of introducing botanical study into many of the parish and common schools of that country, because, as he says, "Experience has satisfied me that structural botany may be more conveniently and extensively employed than any other branch of natural science for strengthening the observant faculties and expanding the reasoning powers of children in all classes of society. The rudiments of that department of science are best adapted for educational purposes, and can be mastered without more than ordinary, wholesome painstaking, even by young children."

In our programme there is no mention of object teaching—no provision for instruction on the structure of plants and animals—no physiology even for juniors—absolutely nothing in the form of Nature study which is specially adapted to children, but there is a metaphysical requirement labelled arithmetic.

Baldwin says: "Of all the intellectual powers, reason acts most feebly in childhood, and is the latest to reach full vigor. The child who is dragged through difficult abstract work in arithmetic or algebra is dwarfed, not educated." And the philosopher Locke, writing two hundred years ago, said: "Children do not begin to number nor proceed very far till a good while after they are furnished with a good store of other ideas, and some are not able all their lives to reckon or go over any moderate series of numbers."

My position in this matter is well expressed by Mr. Taylor, of Chatham. In the preface to his new "Arithmetic," he says: "Too much time is spent in trying to teach number analysis and synthesis to young pupils whose minds have not sufficiently matured to form the concept for which the symbol stands. It may even be doubted that the pure number is anything but a mere word or symbol. It cannot be claimed that the teaching of mere words contributes much to the mental growth. A large part of the time so spent in the primary classes would be better employed in teaching how to read and write the English language. It is suggested also that the pupil should be able to read and write ordinary language with some degree of accuracy before he learns the more difficult language of number, for it is through the ordinary language that he must learn any subject."

Dr. McLellan says: "The unconscious growth towards a reflective grasp of number relations is seriously retarded by untimely analysis—untimely because it appeals to a power of reflection which is as yet undeveloped. Number can only be taught by such presentation of things as will stimulate and aid the mental movement of discriminating, abstracting and grouping which leads to definite, numerical ideas." Of the results of improper methods, he says: "The pupil passes from abstractions which have little meaning to abstractions that have no meaning. Too often a proper foundation is never laid; essential ideas are left vague, and all advanced work shares in the vagueness." How completely this is confirmed by the experience of every teacher and inspector, the many failures in arithmetic at the various examinations bear testimony. And the consequence of such failures is that many of our young people, especially girls, are deprived of the advantages of High School training.

That much precious time is wasted on arithmetic is undoubtedly true of all the classes in our Public Schools, but especially so of the

junior forms. If we are to judge of a tree by its fruits, then it must be acknowledged that the results of so much drill and hard work in arithmetic are extremely disappointing. A pupil who is thoroughly trained in the use of the English language has far greater satisfaction in after life than the great majority of the adepts in arithmetic, who, as a rule, are deficient in English. Proficiency in arithmetic is allowed to cover a multitude of shortcomings in other branches in our schools, and is wrongly made the supreme test in all promotions. It is given too high a place as a means of training the reasoning powers. It is not so good as grammar, which is far more easily comprehended, and below elementary geometry, a better instrument for developing the reason.

Dr. Gordy, in his "New Psychology," has this: "Few educational experts to-day doubt that we require our pupils to study arithmetic about twice as long as we ought, with the idea that it is especially adapted to training the reasoning power." Dr. Harris, the highest educational authority in the United States, says: "The true psychological theory of number is the panacea for that exaggeration of the importance of arithmetic which prevails in our Elementary Schools. As if it were not enough that the science of number is indispensable to the conquest of nature in time and space, these qualitative-unit teachers make the mistake of supposing that arithmetic deals with spiritual being as much as with matter: they confound quality with quantity, and consequently mathematics with metaphysics. Mental arithmetic becomes in their psychology the discipline for the pure reason, although, as a matter of fact, the three figures of the regular syllogism are neither of them employed in mathematical reasoning."

This, bear in mind, is said of American schools, where far less attention is paid to the subject than with us. Dr. Harris would, no doubt, say of us, that we have lost our reason in seeking a means to develop the reason of our children. I cannot conceive a more pronounced *reductio ad absurdum* than is furnished by our blind worship of this subject. Not that it is so pleasing to either teachers or pupils—quite the reverse. Arithmetic is the great bug-bear—the *bête noir*—of a large proportion of the pupils of our Public Schools, and yet it remains enthroned in the highest place, and receives one-fourth, at least, of the entire time and attention of teacher and pupil. Has not the time come to dethrone it and relegate it to a subordinate place in the curriculum? Who will be



the iconoclast? If it were left to me I would strike to-day, because it displaces better things. Our boys and girls are every day in contact with plants, pebbles, insects and animals, of which they are taught absolutely nothing, because the teacher is not required to do so, and has no time for it if he were. But he *must* have time for arithmetic, and he must have a *great deal of time* to make any showing at all, because very often he anticipates nature with his untimely instructions.

How long are we to continue blindly to help forward the educational car with this grinding brake upon its wheels? Would it not be the part of the commonest prudence, despite a frequent flourish of trumpets extolling our school system, to stop and inquire whether we are not spending "our labor for that which satisfieth not"? In my opinion it would be better to revert to the arrangement of Rugby, with its seventeen hours per week for classics to three for mathematics, than to go on as we are.

We have next to nothing to promote ethical training; arithmetic tends in the opposite direction. Why cannot a place be made for some one or more of the departments of natural history, which is of so high a value both for culture and utility, and the training in which must produce a better and higher type of manhood?

To sum up, I submit the following propositions:

1. That in our present Public School programme the work required from junior classes in arithmetic is beyond the capacity of many of the pupils, and as a consequence much of the time of both teacher and pupil is wasted.

2. That in all classes the subject requires a maximum of effort on the part of the teacher to accomplish a minimum of result on the part of the pupils.

3. That arithmetic is distasteful and difficult to a large proportion of pupils, and to that extent is unworthy a prominent place on the programme, and should not be compulsory beyond the elementary stage.

4. That instruction in very important branches of knowledge is displaced and precluded by the inordinate attention required for arithmetic.

5. That our course of study is in this respect out of harmony with the best systems of popular education in the world, especially with those of Germany, England, and the United States.

6. That our anomalous position in this matter has to some extent arisen from, and been aggravated by, too high examination standards.

## TRUSTEES' DEPARTMENT.

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*PRESIDENT'S ADDRESS.*

S. W. BROWN, L.D.S., DUNNVILLE.

Gentlemen,—In addressing a few words to you this afternoon, I desire, by way of introduction, to speak for a moment in a somewhat general way of the education which we enjoy at the present time. I use the word enjoy because, in order to reap the greatest possible benefit from any branch of study, we must thoroughly appreciate and enjoy it, must love the subject for its own sake, must use it not merely as a stepping-stone to raise us toward some coveted goal, but must pursue our onward course both for the actual pleasure there is in gaining the knowledge as well as for the practical use which may be made of the knowledge when acquired. Mr. Quirk, the eminent educator, in his well-known book on "Educational Reformers," says "that a boy, before he can throw energy into study, must find that study interesting in itself or in its results." He would set up a standard of education determined not so much by the knowledge acquired as by the interest manifested by the individual in that knowledge, what effort he was making to acquire it, what capacity he had for its acquisition, and whether he was able to use properly what he had already gained.

I quote a few lines from one of our able Toronto editors who makes some very practical comments on Mr. Quirk's idea. He says: "This theory of education does not deny the importance of knowledge, but it recognizes the fact that it deserves its value entirely from the mind itself, and is only valuable in relation to it. It is the capital with which the mind works, but the value of the capital depends entirely upon the character and capacity of its possessor. Hence, the man who gives his son a sound and thorough business training, if, by the blessing of God he has been enabled to impress upon him a high moral character, though he leaves him but a little to begin life with, does a far better

thing for him than if, without these, he had left him the possessor of millions. The real wealth is that which a man has in himself. And all this is as true of intellectual as of material wealth."

It might be added, then, that a highly educated, or I might say, perfectly educated man is one that is most eager in the pursuit of knowledge, is most intensely interested in the work, and who makes the very best possible use of each item of knowledge after it has been acquired.

Education as you all know, is a leading out, a training of the human faculties ; and as far as we as trustees are concerned, more especially of the thinking faculty of the pupils attending our schools.

And this subject opens out into such a wide and ever-expanding field, into a field so freighted with possibilities and tremendous responsibility, that I hesitate and advance, though but to its edge, with faltering and reverent step and brow prone with the weight of the thoughts which I am incapable of voicing.

For, have we not in our hands the youth of our land, to be trained for time and for eternity ? Should we not adopt methods which will lay the foundation for making successful men and women who will make the home brighter and happier and this fair Canada of ours, still fairer ; men and women who have been so well taught in the principles of truth and patriotism, too, as well as in the principles of classics, mathematics and the sciences, that, when the crucial period comes, there will be no rebels against their country or their God ? In fact, we want men who can not only hold their own against all comers in the ordinary pursuits of life, but who, in troublous times such as the present in South Africa, can stand with the bravest with their face to the foe. For our valiant Canadian boys in that far distant land have already gained an enviable reputation for dauntless courage, of which every loyal Briton is proud. In intelligence, too, it is said, our soldiers are fully abreast of their Imperial fathers and colonial brothers ; in short, gentlemen, our troops have won a name which will be imperishable, at least as long as the British Empire shall endure.

This leads me to note what we, in our capacity of trustees, a part of an educational system with such high aims, should be. We, and very properly too, criticise others at times. Suppose we take one minute to reflect on ourselves. I was impressed the other day, by a remark made by a newly elected trustee. Said he, "We should be models." I know perfectly well that formerly, accord-

ing to the regulations and now by Statute, Number 76, section 1, the teacher should be a model. He should inculcate by precept and example, respect for religion and the principles of Christian morality, and the highest regard for truth, justice, love of country, humanity, benevolence, sobriety, industry, frugality, purity, temperance and all other virtues. But that a trustee as such should be a model of this kind was focussing the camera on a new object, or I might say subject. No doubt, however, a trustee should be remarkable for his integrity of character and purity of purpose; while to choose such a teacher as set forth in the above law, one would need the reputed insight of a soothsayer and the foresight of one of the ancient prophets. Yet, in selecting a teacher, we should approximate to the spirit of the law and strive to secure one as well with the highest attainments in book-lore as with a moral character which is unimpeachable.

To secure the best results in our school work, it goes without saying that our school buildings should be commodious, comfortable and liberally equipped. But I would make special mention of the school grounds which, in my opinion, are altogether too small, and are, in every case which has come under my observation, capable of improvement. In this Canada of ours—and a rich inheritance it is—where the land is comparatively cheap and procurable, our school grounds should not consist of at least one acre, but of at least three acres, and five acres might often be used to advantage. How can a boy be expected to develop broad and liberal ideas when, with a fine, level ten-acre field in sight, the school-house is planted on a hill of rocks with rows of stumps for a border? Even when a good level acre is secured, a building placed thereon and the ground divided for boys and girls, how much room is there for the foot-ball, baseball, lacrosse and all the other games of which every boy is fond, and which help to develop the brawn and muscle which our Canadian youth possesses and of which every Canadian claims a right to boast? Then, how many of our school lots are arranged neatly and systematically into walks, lawns, flower beds, tennis courts, etc. Such arrangements would help to foster ideas of neatness, order and love of the beautiful in the mind of the pupil. Agriculture is a subject of growing importance. Why not in connection with each school, set apart a small portion of land for the practical study of the subject, to test fertilizers, the suitability of different grains, fruits and vegetables to certain soils and so on? Many a three-acre lot could be found, each containing several

kinds of soil. We don't want to draw the boys away from the farm, but we do want educated intelligent farmers who will dignify their profession. We have many of these in Canada to-day and will have many more ten years hence.

Another point which is of sufficient importance to deserve a passing thought is that of the deportment of pupils. You, perhaps, have heard of the gentleman who, when asked how he made his fortune of \$400,000, answered, by "politeness, sir," and possibly you have not heard of the professional man concerning whom it was asked, why he did more business than all the others of his profession, in town and the response was given, "his manners, sir." Then how are we to train our pupils to be mannerly? (By precept and example, Statute 76, sir.)

One of the leading educators of Ontario was asked how he would teach a pupil to read. He answered, "Never let him read incorrectly." This will apply perhaps more closely to good manners. The teacher should never accept an impolite answer, nor tolerate any impolite action or word which may come under his notice.

I wish now to touch on a few of the regulations which play such an important part in our school system. And in this connection I need not now tell you that the educational system of Ontario is one of the best in the world, that all the machinery of this system is well oiled and in good working order, and that the regulations up to the present time have been the best that could be devised by the wisdom of our very worthy members of the Education Department, and I take this opportunity to extol their efforts.

I should like, however, for a moment to discuss a few points with reference to existing regulations, and possibly offer a suggestion or two. Commercial work in High Schools and Collegiate Institutes has been advanced a step by book-keeping being made obligatory instead of optional. The examination requirements should be made comprehensive and practical enough to enable a pupil, who has taken the course, to manage the books of any ordinary business establishment, even if the study should have been taught in Form III. of the High School. I sincerely hope that the course in book-keeping lately outlined by the Department will be continued, and that trustees will urge that special attention be paid to the subject, and pupils encouraged to pursue the study with a view to securing a commercial diploma. This is a practical



age, and our schools should make every legitimate effort to meet its demands.

The action of the Department in placing arithmetic and grammar among the subjects of Form III. is highly commendable. Those subjects are of great practical value, and serve also as excellent mind-trainers. The average pupil of Form II. has not reached that stage of development necessary to derive the greatest benefits from the study of these subjects, leaving out of consideration his ability to grapple with the difficulties which he must necessarily encounter. Physics, of late years, has occupied a more prominent position than formerly, and this is as it should be, but at present, I contend, there is a danger of overstepping the mark. Form III. physics covers too much ground, and should be curtailed as Latin authors has been.

Let me conclude my remarks with regard to the regulations by a reference to the Public School Leaving examination. The regulations here have reached an absurd stage. They state that "the Public School Leaving examination will hereafter be identical with the examinations prescribed for Part I. Junior Leaving standing." Now, students write on Part I. Junior Leaving examinations at the end of the second year of the High School course. Having studied diligently for two years after passing the entrance, they pass this examination, and are entitled to enter Form III. During the two years the pupils have been thoroughly grounded also in the subjects required for Form III. What is the position that a candidate occupies who passes the Public School Leaving from the average Public School? In what form of the High School is he to be placed? He knows not a word of Latin, an important and compulsory subject of Part II. Junior Leaving or Form III. examination. Can he get up the required Latin in a year? No, not even with the most diligent study and wicked system of cram. Clever Public School Leaving pupils are often compelled to spend the year in Form III., which they should have spent in Form I., thus putting the cart before the horse, which is not a brilliant mode of procedure even in education. A pupil should study Latin two years before entering Form III.

And what shall we say of the other subjects required for Form III.? I speak now with all due respect for our excellent Public School teachers who have been well trained in our High Schools and Collegiate Institutes, in our Model and Normal Schools. But

can the subjects of algebra, Euclid, and others I might mention, be as well taught by these excellent teachers as by specialists who have been trained in our colleges and universities under the best educators that money can buy or the country produce? Are our universities of any value? Is the training received there worthless? Is a man's intellect broadened or narrowed by coming in daily contact with professors of the highest ability and refinement, such as we have in our colleges to-day; or do our High Schools and Collegiate Institutes do better work than the Colleges, and the Public Schools better than the High Schools and Collegiate Institutes, and does the Kindergarten outclass the Public School? Not at all; you agree that each is doing excellent work within its own particular limits. Let these limits then remain as they have been. I think that the Public School Leaving should be especially for those who do not intend to take out teachers' certificates at all, and that a pupil should enter the High School immediately after passing the present High School entrance, which is difficult enough. Our boys and girls are not entering the High Schools too soon. Educators the world over have said, and do say, that certain subjects of very high educational value should be begun when the child is young, even only nine years of age. Their advice should be worth something, and we should be wise enough to profit by their experience.

Look at Form V., Public School work, from another point of view. The teacher has not had time to do entrance work and Public School Leaving or Form V. work, unless he does so at the expense of the lower forms. I have it on good authority that it is almost impossible, in an ungraded school, to do Entrance work alone without neglecting the lower classes, unless, indeed, the teacher works after hours, as many a one has to do to retain his position; for he must pass his pupils, or out he goes. If a teacher does this kind of work, he exhausts his energies to the detriment of his school. Therefore, we as trustees are guilty of a great error, and are acting in a manner diametrically opposite to our own interests if we force a teacher to take up Form V. work in an ungraded school. We are endeavoring to make him perform an impossible task, *i.e.* to do justice to Forms I., II., III. and IV., and to carry on Public School Leaving work at the same time. Let us then exercise our prerogative by asking the teacher under our jurisdiction not to conduct any Form V. class in the Public School, and thus relieve the teacher from an intolerable burden.

But I must desist, for I see before me an excellent programme ; papers to be read on questions of vital importance to our schools. The subjects are to be dealt with by men who are eminently capable of handling difficult problems. I bespeak, therefore, a free, fair, full and hearty discussion of every matter which should be discussed, and trust that this meeting of the Trustees' Association, and of the Ontario Educational Association as a whole, will be the most enjoyable, interesting, beneficial and in every respect the most successful one that has ever been held in Toronto.

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*MANUAL TRAINING.*

A. WERNER, ELMIRA.

Mr. President and Gentlemen,—As one of the committee nominated by this body last year, to inquire from available sources, to report at this session and to lay before you a scheme for carrying into effect the introduction of manual training in our Public and High Schools, I beg to report as follows: The work has been a source of pleasure to me, and feeling the responsibility of this work assigned, and the trust placed upon me, I devoted as much of my spare time as I possibly could in obtaining such information as was within my reach, which was obtained by personal inspection of an institution now carrying on this work in our midst, by correspondence with the principals of schools who are now and have been doing such work for a number of years in the States, from conversation held with gentlemen who have attended such schools, and by reading papers and reports which dealt with the matter. In order to make my report embrace the whole field of inquiry as much as possible, I will divide it into the following:

1st. Why should manual training schools be established?

2nd. The nature of the work done at such institutions.

3rd. The relation of manual training school work to the present pedagogic work of the academic course.

4th. What may reasonably be expected by the introduction of such schools viewed from the testimony of experienced teachers and the practical results by pupils who have pursued such a course?

5th. The wrong view of the work.

6th. Estimated cost of buildings, equipments, etc.

In answer to the first, Why should manual training schools be established? I might here give Inspector Hughes' statement contained in his report on "Manual Training," 1897, Ontario Educational report, page 353: "The productive powers of humanity are weakened when knowledge is stored without a definite purpose, or when it is communicated to a child before it has power to apply it. Our powers may be classified as receptive, reflective and executive. These powers cannot be thoroughly developed separately. The only perfect training of the receptive powers and the reflective powers is the training they receive as

subordinate and essential stages in the achievement of our purposes, especially of original purposes." Our friend Mr. Chown brings out the truths underlying this statement very forcibly in his very able paper on p. 395, in the report of the same year. Froebel is the precursor of the introduction of manual work into the primary schools. He has the glory of having opened new outlooks to educators, of having taught them the fact that the only salutary education is that which prepares the child for life; that which does not separate study and work, but merges one into another. (U. S. Commission Report on Education, p. 687.)

These views are universally admitted as fundamental truths. Our Ontario school system has adopted them in the first lessons imparted to childhood under our Kindergarten system. Passing out from there the child is left to develop its intellectual powers without any further special aid in this direction. We should not lose sight of the fact that the child of to-day will be the man of to-morrow. Consequently to work at his education is to work on the amelioration of humanity and uplifting of the State. Could we continue this work, adapted to the growing needs during all the years of instruction, have we not every reason to think and believe that thereby we could prolong the years of giving instruction, achieve better results, give more permanent benefit and inculcate a love for the work? The experience of those who are in the position to say is, Study becomes a pleasure not a toil.

2. The nature of the work done at such institutions. It is to become familiar with hammers, chisels, planes, saws, nails, squares, forges, anvils, tongues, wood-working and iron-working machinery necessary to produce the articles as made in the institution, whether of wood, iron or both. Drawings, sketches, plans, necessary for the completion of the work. The pupils are taken step by step and made familiar with the use of the most simple tool first which they are required to use, and the nature of the material that enters into the construction of the article being made, and the classes that present themselves from time to time during the hours of work are seemingly all anxious to learn, and they show a spirit of earnestness in the work which speaks volumes for itself. The length of time required to take the full course varies somewhat with different institutions, but I find that three or four years is set down for the length of time required by such schools which are doing the best work in this line. The pride manifested by the boy who for the first time is able to show to the world his power



of producing an article of his own creation, very forcibly demonstrates the views given in the first portion of my paper, and that the uplifting power lies in doing and not in going to do. Principals tell me the interest seemingly never ceases during the time required to take the full course, and that pupils enter into the work the last month of the last year with as much earnestness and zeal as they do during the first months. The nature of the work has kept pace with the development of the powers and knowledge stored up where as they first feel proud in being able to handle the simplest tool satisfactorily, they are now engaged on a work more intricate and complex. Do we not find these truths applicable to our own lives? Is it not what we do that cheers us on our way, and not what we some time or other are going to do?

3. The relation of the manual training school work to the present pedagogic work of the academic course. A gentleman of sixteen years' experience in one of the best of such schools in America writes me: "My sixteen years' experience as Director of this Manual Training School convinces me that there is a pedagogical value in manual training; that the manual training boy is better equipped for active life, not in the skill of hand alone, but also by reason of the intellectual discipline resulting from manual training, than he would be did he pursue merely the academic studies of the High School course. The manual training develops self-reliance, judgment and will-power more than the study of books alone. It seems to give a boy a better command of all his faculties, and to enable him to enter into the battle of life with more cheerful confidence than other boys." Another gentleman of a number of years' experience, and who loves the work more and more the longer he is engaged in it, writes me: "I am an enthusiastic advocate of manual training, and my continued experience only convinces me the more of its utility." But I don't take the extreme position that it is the only good thing in the educational line—that it will do everything for a boy, regardless of what other training he may get—but I am fully convinced that, combined with regular school work, manual training is a factor of supreme importance in mental development and discipline. Wherever it has been introduced it has been found to be especially helpful along these lines. It cultivates close and quick observance, able to grasp more quickly whatever work is presented, develops manly self-reliance and general thoughtfulness.

4. What we may reasonably expect from such schools. The suc-

cess of manual training work will depend largely upon its management; it may merge into a mere play school, or become a school of usefulness. The schools I have referred to are those around which there is an atmosphere of earnest work, and where enthusiasm of the pupils is brought about by the efficiency of the instructor, not alone in the practical work, but in his efficiency and adaptability as a teacher. The academic course of study cannot well be separated from the practical work performed in the manual training department; they must work conjointly to bring about the best results. In conversation with pupils now in active life who spent a portion of their time in this branch of work in their course, I am assured that they look back to the years spent in this manner with pleasure, and the time spent is not regretted, but it has proven itself a source of strength during their university course, as well as profitable to them in the pursuit of their life's calling.

5. The wrong view of the work. A wrong impression has been formed of what is intended shall be accomplished by the introduction of such schools. There can only be one object which is intended to be brought about, viz., To use it as a means by which, along with what is at present being done, Froebel's masterly and beautiful system can be the better accomplished. The growth of the child's intellectual faculties is more fully developed; it appeals to the child's individuality; it develops his special aptitudes; it stimulates the will and forms the judgment which is to guide it. It awakens the spirit of observation, of research; it develops a taste for work and arouses the inventive tendency; it teaches that happiness comes from duty well done. It trains at the same time touch, sight, hearing and speech. Graduates choose their life's vocation with a greater certainty as to their aptitude, and there are those in our professions who have pursued a manual training course along with the academic course of studies, who, in their student years, took as deep an interest in the one as in the other, and whose excellent standing was never marred by the work, and when the results of the final examinations were announced, they obtained as prominent a place in the one as in the other; so that nothing need be feared in this direction. It is not intended, nor was it ever intended, that the introduction of such schools was to manufacture artisans of an unknown quality, any more than the teaching of physiology was to create a physician, the teaching of chemistry and physics to produce mechanical and electrical experts, or the teaching of literature to create men of letters; but when we bear in mind

that it is a sacred duty of the State to teach such things which are fundamental principles, no matter in what vocation our boys carry on their studies afterwards, we cannot do otherwise than urge upon those who are educationists in our noble province to see that the missing link in our otherwise creditable school system is introduced.

6. As to the cost of buildings and equipment. This will vary greatly. I have a report of a school in our midst which has been doing such work very successfully for a number of years, namely, the Manual Training School, of Woodstock College. The building is of brick,  $2\frac{1}{2}$  stories high, 32x80 feet, and was erected at a cost of \$3,000; a further expenditure of \$7,000 has since been incurred in its equipment. This school has been in operation since 1889, and is now a very complete school, and can take up the work in all its branches. I am afraid the question of cost will greatly hinder the general introduction of such schools, for a number of our High Schools are now maintained under great difficulties; but the importance of the work should demand its introduction into our province, and such assistance should be granted as will bring about a well-equipped institution, and the management thereof placed under the supervision of the Education Department. This would afford an opportunity to our boys of which they could avail themselves, and rise to a higher degree of efficiency, thereby being the better able to take hold of the great enterprises that are budding forth in our great Province of Ontario.

*MANUAL TRAINING.*

GEORGE Y. CHOWN, B.A., KINGSTON.

Your Committee are pleased to be able to report that the past year has been one of decided progress in the knowledge and introduction of technical education in Ontario. During the year the address of Mr. Farewell on technical education was printed and widely disseminated. The address of President Loudon, of Toronto University, on the same subject, was published. The Toronto Board of Trade issued the report of a special committee and an address by the chairman of their committee on "Technical Education from a Business Standpoint." Professor J. W. Robertson published a pamphlet on "Manual Instruction," outlining the work to be undertaken with the Macdonald Sloyd fund. Through the munificence of Sir William Macdonald, of Montreal, arrangements have been completed for the introduction of manual training classes for all the boys in the Public Schools of Ottawa between the ages of ten and fourteen, and already classes have been opened in Brockville, available not only for the boys attending the Public Schools but also for the pupils of the Collegiate Institute. In Kingston, after the successful operation for five years of manual training in the Public Schools, the Board of Education has prepared a scheme for the introduction of technical classes in the Collegiate Institute. The objects aimed at are mainly to provide courses for those fitting themselves for mercantile and mechanical life as well as for those intending to be mining, civil, electrical or general engineers. Just as the present courses provide for a general education, but are more used by those expecting to follow a professional career, the new courses, taken in connection with the literary classes of the Collegiate Institute, provide for a thorough grounding in the necessary elements of a general education, and in addition provide instruction especially fitted for those intending to pursue the callings mentioned.

As there appears to be a misunderstanding regarding the different terms used, your Committee think it well to define (1) Manual Training, (2) Technical Classes, (3) Technical Schools.

Manual training has for its object the training of the brain through the hand and eye, and is really a continuation of the paper

folding, cardboard work, and stick-laying of the Kindergarten. The manual instruction found most suitable relates to the principles and practice of woodwork, treated educationally. The object to be aimed at is not to make boys carpenters, but to train them in habits of accurate observation, careful measurement and exact workmanship. Such mental habits we regard as of great value to all boys, whatever may be their subsequent career in life.

Technical classes are adapted to the needs of our High Schools and Collegiate Institutes. They presuppose instruction in manual training, including drawing, and are educational rather than industrial, and should form part of our educational system. Besides a complete course in English, they include instruction in practical mathematics, experimental physics, elements of chemistry, draughting and machine-drawing, modelling and some more advanced form of woodwork. Technical Schools are commercial and industrial in their aim as well as educational. Their object is to provide that instruction which will best assist the production and distribution of the resources of our country. Just as our Medical Colleges, Law Schools, Theological Halls and Normal Colleges provide the practical instruction for the professions to which they refer, the Technical Schools give the practical instruction for the artisan, merchant and engineer.

In Germany, where this class of school has been most highly developed, they have specialized so that they have Technical Schools for mining, dyeing, agriculture, tanning, brewing, soap-making, clock-making, ship-building, knitting, weaving, etc. Owing to the cost of equipment, the number in Ontario is likely to be few. At present we have in this class the School of Practical Science at Toronto, the School of Mining at Kingston, the Agricultural College at Guelph, and the Dairy Schools at Kingston and Strathroy.

Your Committee would point out that the present educational system of Ontario has been of slow growth, that manual training and technical classes, while most important, can never at any time be more than a part of the whole educational system. Your Committee recommend that the Public and High School Trustees' Department of the Educational Association endorse the following recommendations:

(1) Kindergartens should be introduced wherever possible.

(2) Paper-folding, stick-laying, cardboard work and modelling, nature studies, and elemental science should be introduced in the Junior Forms of the Public Schools.



(3) Manual instruction should have a place in the senior forms of the Public Schools.

(4) Wherever possible, technical classes should be established in connection with our secondary school system; these classes to be opened not with the idea of destroying or abrogating the instruction already given therein, but with the object of broadening the whole system.

(5) Whenever the foundation has been successfully laid in the Public School and High School or Collegiate Institute, fully equipped Technical Schools should be established in suitable centres, in which instruction, both practical and theoretical, will be given on a level with the teaching imparted in other directions by the universities. In these advanced schools emphasis should be laid on those subjects a mastery of which will lead most directly to the development of the resources of our Province.

Your Committee attach hereto extracts from the report of a Commission on Manual and Practical Instruction in Ireland, which seem to them to be an excellent statement of the principles underlying this subject.

“Even primary education has a scope wider than the teaching of reading, writing and arithmetic, or even than the development of the intellectual faculties in general, and some cultivation of manual dexterity for its own sake may fairly claim to be a proper object of every well-ordered system of primary education. It is maintained, too, by writers of authority that the cultivation of manual dexterity reacts advantageously upon the intellectual faculties, and is an important aid to their development. Recent physiological research gives support to this contention. It is stated by high authorities in this department of research that the development of what are known as the higher brain centres is intimately connected with the development of the motor centres which control the action of the hand, and which in their turn depend for their development on the exercise of that organ. In any case it is a matter of experience that manual exercises do, in fact, constitute an instrument in some respects more suitable and convenient than other school studies for attaining certain intellectual and moral results which are of high value in the training of the child.

“We may here, for the sake of clearness, distinguish, in accordance with the view now generally accepted, between two objects aimed at in the practice of manual exercises in school—the direct

and indirect. The direct object is the acquirement by the children of a general manual dexterity, which shall render the hand a more efficient servant of the brain in all circumstances. It is to be observed that even from this point of view it is a general manual dexterity which is to be aimed at, not the special dexterity suitable to a particular trade. The indirect object is the mental and moral discipline referred to above. Of the two objects, although the first is not to be neglected, and although it cannot be neglected if the second is to be attained, the second is for school purposes incomparably the more important, and must be the main consideration in determining the course of instruction to be pursued.

"The present system, which consists largely in the study of books, is one-sided in its character; and it leaves some of the most useful faculties of the mind absolutely untrained. We think it important that children should be taught not merely to take in knowledge from books but to observe with intelligence the material around them; that they should be trained in habits of correct reasoning on the facts observed; and that they should, even at school, acquire some skill in the use of hand and eye to execute the conceptions of the brain.

"The evidence we have received on this point is absolutely unanimous, and, as we think, entirely conclusive. We have been told, over and over again, that the introduction of manual and practical training has contributed greatly to stimulate the intelligence of the pupils, to increase their interest in school work, and to make school life generally brighter and more pleasant. As a consequence, the school is improved; the children remain at school to a more advanced age; and much time is gained for the purpose of education.

"We inquired particularly whether the literary side of school studies—reading, writing, arithmetic, grammar and geography—had suffered any loss by the change; and the answer was uniform, that no such loss had been observed. In some cases we were assured that the literary studies had been positively improved by the introduction of manual training. This result was accounted for, partly by the increased intelligence of the children, partly by the constant change and variety of their occupations—many of the most useful exercises being only a kind of organized play—and partly by their increased interest in their work.

"We regard it also as a very significant testimony to the value of manual training, that wherever it has been once introduced, it has,

with hardly any exception, been continued and extended. There has been practically no disposition to go back to the old system, which made primary education almost exclusively literary in its character; and after an experience extending over some years, there is a general consensus of managers of schools, inspectors and parents, that the value of primary education has been greatly enhanced by the change.

“Lastly, there is a consideration of a practical character, which seems to us deserving of no little weight. A strong desire exists throughout this country, and it is growing stronger every day, for the introduction of a general system of technical education. It is thought that a good system of technical education would contribute largely towards the development of arts and industries in Ireland; and in this opinion we entirely concur. But the present system of primary education is so one-sided in its character that it leaves the pupils quite unprepared for technical education. The clever boys trained in the Public Schools, if they are disposed to seek for a higher education, may pass with advantage into High Schools; but they are not fit to enter a Technical School, even if they had such a school at their doors.”

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## VOLUNTARY PUBLIC SCHOOLS.

L. H. BALDWIN, TORONTO.

In Ontario we have established a system of Public Schools which not only receives very general support throughout the Province, but also favorable comment elsewhere. However, much as we may admire the system, no one can say that it is perfect. Many, in fact, are much dissatisfied with the practical results. Some go further, and criticise it severely as being so mechanical as to deprive its work of all individuality of character. At the last meeting of the Ontario Educational Association, a paper was read by Professor Robertson, of Victoria College, in which he termed the system a "fetich," and expressed little, if any, hope of improvement under present conditions. No doubt one reason why the Ontario Public School system has been so popular is because it seemed to fit in with the democratic demands of the day, and satisfy the hope that our common schools will become the sole instrument for educating Canadian citizens. But in confining the work of the system to the limited sphere of the common school, surely some injury is done to the educational work of the Province. It is impossible, under such mechanical conditions, to attempt to provide a liberal education; and for this reason many of the wealthy class of citizens educate their children in *private* schools, *separated* from the Public School system; leaving all other classes to utilize our common schools as the only means of obtaining an education for their children.

At present the parent is completely ignored in the management of our Public Schools, controlled as they are by a Board of Trustees elected by popular vote. Opportunity is thus given to the influence of all the worst features of "ward heeling" and politics. The parent having no voice, the voter, whether he has children or not, whether he is respectable, worthless, or even vicious, has yet his vote, which is all-powerful in the selection of the managers to advise and control the Public Schools, to which parents are then compelled to send their children, or else *separate* from the system entirely.

To overcome these defects, the proposal is made to affiliate Voluntary Schools with the Common Schools in one complete

Public School system, having sufficient uniformity and yet flexible enough to meet the varying demands of different classes of the community. The healthy rivalry created by the establishment of these schools must have a beneficial effect on the whole system. One school reacts on the other in the common aim to produce the best results for the time and money expended. The fact that there are so many private elementary schools is evidence of the demand for a diversified form of education. I cannot do better than quote here the words of John Stuart Mill, which are well worth considering. He says: "That the whole or any large portion of the education of the people should be in State hands, I go as far as anyone in deprecating; all that has been said of the individuality of character and diversity in opinions and modes of conduct involves, as of the same unspeakable importance, diversity of education. An education established and controlled by the State should only exist, if it exist at all, as one among many competing experiments, carried on for the purpose of example and stimulus to keep the other up to a certain standard of excellence."

Why should we not encourage Voluntary Schools to affiliate with the State system, the condition of affiliation depending on the employment of duly qualified teachers, the use of common textbooks, and submission to the same inspection? This would secure all that the State requires, and opportunity would then be given to parents to supplement the ordinary work of the common school with such classical, scientific, commercial, religious or other instruction, as any substantial number may desire, who are willing *voluntarily* to contribute the money required to support such additional instruction.

In presenting to you a scheme for the affiliation of Voluntary Schools with the Ontario School system, let me clear away two very common misconceptions in regard to it. Many assume, without I think consideration, that the scheme is simply an extension of the separate school system; while it is nothing of the sort. In fact, it is the very opposite. An affiliated school cannot be a separate school. Others are opposed to the State undertaking in any way to impart<sup>d</sup> religious instruction, and make this the grounds of their opposition to the proposal; while, as a matter of fact, the State has *absolutely nothing* to do with the special instruction imparted in Voluntary Public Schools, whether it be religious or secular. The State alone is concerned in securing at least an efficient common school education for the children of all classes, and



the Voluntary Public Schools simply assist in carrying on the educational work of the Provincial system. No money from the public funds will be used for supporting any special instruction imparted in a Voluntary Public School.

We have at the present time a large number of Voluntary Schools, established chiefly in the cities and larger towns, carried on as private enterprises, founded for the purpose of affording more liberal educational advantages than can be secured in the ordinary common school. These Voluntary Private Schools are now quite distinct from the State system, and anyone sending children to them thereby *separates* from the Public School system of the Province. Working under such rigid and mechanical conditions we lose in our Public Schools all opportunity of affording a liberal education and the possibility of reasonably adapting Public Schools to the needs of the various classes of the community; while with private schools many feel a lack of confidence in the efficiency of their work, which might be overcome by enforcing, or, at least, encouraging the employment of duly qualified teachers, and in requiring their work to be submitted to the same inspection as the common school. Sufficient uniformity would be maintained in the work and in the promotion of pupils which would enable the children to pass from Common Schools to Voluntary Schools, and *vice versa*, without losing their standing in their classes. The work in all schools would thus stand in better proportion, and together they would constitute one National Public School system.

I will here set out the scheme in detail, that we may have something definite to consider. It may not be perfect in arrangement, and may need some qualifications. The details can be worked out when we have agreed on general principles.

#### NATIONAL SCHOOL SYSTEM, RECOGNIZING VOLUNTARY SCHOOLS.

##### TAXATION.

1. All ratepayers to contribute to a common "*building fund*," necessary to meet the cost of providing accommodation for all Public School children not attending Voluntary Schools.

2. All ratepayers to contribute to a common "*educational fund*" necessary (with the Government grant) to meet the cost of imparting elementary secular instruction to all the children attending public schools (including Voluntary Schools).

## VOLUNTARY SCHOOLS.

3. Any school conducted in a suitable building, provided at the cost of its supporters, and (a) having an average attendance of at least thirty pupils, maintaining a standard of efficiency in secular subjects; and (b) using the Public School text-books; and (c) employing as teachers only those holding Public School certificates; to be entitled, on the written application of at least twenty heads of families resident in the school district, to have such Voluntary School placed on the list of Public Schools; subject to the same inspection, and to share in such "*educational fund*" according to the average attendance as in the case of other Public Schools.

## INSTRUCTION IN SPECIAL SUBJECTS.

5. In Voluntary Schools special classical, scientific, commercial, mechanical, religious or other instruction may be imparted to the pupils; provided, however, that it in no way interferes with the efficiency of the work of imparting the elementary instruction required by the State curriculum.

In regard to taxation, it will be seen that all ratepayers contribute in proportion to their means as at present. All unite in supplying common school accommodation to meet the needs of each district. No one who is satisfied with the restricted education of the common school can complain that they have not a suitable building to accommodate their children, while parents desiring a more liberal education for their children are not deprived of their right to share in the public funds expended on the maintenance of a public school education. Our municipalities would expend exactly the same amount of money, per capita, on the children attending Voluntary Public Schools as on those attending the Common Public Schools. The encouragement to parents to supplement the work of the common school must materially advance the educational work carried on under our Provincial system. The State would still secure the education of a public school—the instruction imparted by its own qualified teachers, using the same text-books, and the work submitted to the same inspection. Parents could at the same time secure the special advantages they desire, and are willing to maintain by their *voluntary* contributions to

the particular school to which they may *voluntarily* choose to send their children.

In our cities and larger towns the average number of pupils in a class is so large that many feel that the teacher cannot in such cases give that personal attention to the pupils, so necessary in making their work thorough and complete. When a substantial number of parents desire to supplement the work of the common school with classical, commercial, religious or other instruction, will it not be a distinct advantage to provide a way by which this could be done in harmony with the State system? It is certainly a manifest injustice to those who wish a liberal education for their children to deprive them of all right to share in the rates levied for the support of a common school education, and to force them to separate from the national system.

On the ground of economy, the encouragement of voluntary public schools will be a distinct advantage to our municipalities. "Financially it seems to me to be the height of folly," writes the Duke of Argyle, "to discourage the greatest of all agencies—zeal for religious truth—in persuading men to support efficient voluntary schools in which they take an earnest interest." The desire to add effective religious instruction to the curriculum of a common school will induce the members of the religious bodies to establish in the school-houses attached to their places of worship voluntary public schools affording a thoroughly efficient common school education. In allowing such schools to affiliate with the Public School system, and in making a per capita grant, "paying them for their work as tested by such methods as may be deemed best," the municipality will secure the education of the common school at simply the cost of maintenance, without being required to make any expenditure on buildings or school accommodation. When we realize that the Public School Board of Toronto is this year asking for \$165,000 in order to increase the common school accommodation in the city, we can appreciate at once the economy. If, for instance, only ten voluntary public schools were established in Toronto, each accommodating one hundred pupils, the sum of \$50,000 might be saved and deducted from this year's estimates. Of course, the buildings used must be suitable. But this can be secured by making reasonable conditions necessary before the school can be rightly affiliated, and the maintenance of such conditions being required for the continuation of such affiliation from year to year.

By the plan proposed, it will be seen that no class of citizens, no matter how poor they may be, will find school accommodation lacking; or the opportunity of obtaining the free education of a common school denied; and no class, no matter how wealthy its members may be, need separate their children from the one national system, having opportunity thereby to supplement the work of a common school with any special advantages they may require. Between these two classes comes, I suppose, the great mass of the community, demanding probably the most consideration in the question of Public School education, and as much entitled to a liberal education as the rich.

The religious bodies represent classes of citizens with a certain community of interest. Let me refer to them particularly for the purpose of making a practical example; though the scheme is equally adaptable to any scientific, commercial or other corporation representing a substantial number of citizens. Here we have a congregation worshipping at one common centre, and having buildings attached to their church suitable for school purposes. At present these buildings are unoccupied and lie idle during the school days of the week. By their use a large amount of accommodation would be secured without cost to the community. Should the parents sending their children to a voluntary school desire to supplement the work of a common school with any religious instruction, surely it is unreasonable for the State arbitrarily to deprive them of their right to be recognized as a part of the Public School system, and to drive them into *separate* schools, when they are ready at their own expense not only to provide the building, but also to contribute what is necessary to support the religious or other special instruction they wish to have imparted.

Another advantage to be derived from the scheme will be the enlarged scope given for the work of capable teachers. Under the present mechanical conditions, the work of a teacher is restricted to the necessarily narrow limit of the common school curriculum. The teacher with ability to impart classical, commercial, religious or other special instruction finds no opportunity under our educational system to fully employ his faculties, except to a very limited extent. No wonder the services of many of our best teachers are therefore lost. With their ability they can rightly earn more than the recompense allowed by our Public School Boards for imparting instruction in the common schools in a limited number of subjects, and consequently they seek other employment; using their

position in a common school simply as a stepping-stone to other vocations. In establishing Voluntary Public Schools the teacher may have a direct financial interest in the success of the school, giving encouragement either in doing better work with smaller classes, or in imparting some special instruction which will entitle them to increased remuneration. The voluntary fees contributed by the parents would supplement the ordinary grant from the Public School rates, the amount of such voluntary fees adjusting itself to the demand and supply of each school, and probably varying according to the requirements and wealth of the supporters in different localities.

Taking the school system as we find it, it will be seen in the first place that the Board of Trustees elected by popular vote can but represent at best a general average. This Board of Trustees will naturally expend only an average amount which will satisfy the popular demands of the section. They will employ only average teachers and pay only average salaries. This condition of affairs, I take it, must be considered ideal with the present system. In practical operation I fancy our common schools, in many places, fall far below what ought to be the average requirements of the community. On the other hand, by the affiliation of Voluntary Schools the work of the School Board must at least be maintained to its present efficiency, while opportunity is given to supplement this with all that makes up a liberal education. I need not here enter into details regarding the management of such Voluntary Public Schools. No doubt the parents establishing Voluntary Public Schools would have a controlling voice in the management; subject to the conditions laid down by the Educational Department, and satisfying the requirements of the Public School Board of the same municipality, and submitting to the same inspection. By the affiliation of Voluntary Public Schools with the Public Schools of the Province, we at once harmonize the interests of the State, the parent, and the teacher all in one National system—all combining in an effort to produce the best and most liberal educational advantages possible for all classes of the community under one Public School system.



# In Memoriam.

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## NEIL MOORE CAMPBELL.

It is with feelings of deep regret that we have to chronicle the death of Neil Moore Campbell, late Principal of the Public and Model Schools for the city of St. Thomas.

Mr. Campbell entered the Provincial Normal School, at Toronto, in November, 1856, and successfully graduated from that institution in May, 1857. He taught a number of years in Lambton and Middlesex, and became Principal of the St. Thomas Public Schools in 1876, and of the Elgin County Model School in 1877, both of which positions he held until his death in 1899.

Mr. Campbell was highly respected by his fellow-teachers both in county and provincial gatherings. In the Training Department of the Ontario Educational Association this appreciation was shown by his unanimous election to the chair in 1899, which position he held at the time of his death.

As a member of the Association, Mr. Campbell was one of the most faithful in his attendance, scarcely missing a session after becoming a member, which was in 1888.

Mr. Campbell showed himself to be a careful thinker, thus enabling him to make very valuable use of his wide course of reading along pedagogical lines, for in this respect he had few equals in the Province. To careful study, close reasoning, untiring perseverance, together with a large share of common-sense, may be attributed his success in the educational world. The Association will miss his wise counsels and earnest efforts in all that would make its meetings a success, and the teaching profession of Ontario one of its ablest as well as one of its most faithful representatives.

Death came very suddenly and unexpectedly, and Mr. Campbell was found in the school-room to the very last hour of his life.

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## OF THE

# ONTARIO EDUCATIONAL ASSOCIATION

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 Odell, Albert, Cobourg.  
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*Annual report and*

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Vol. 39, 1900.

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*Oct 30/34*

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